



SERVICE MANUAL

DUAL BAND FM TRANSCEIVER

IC-2340H

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INTRODUCTION

This service manual describes the latest information for the **IC-2340H DUAL BAND FM TRANSCEIVER** at the time of publication.

| MODEL | VERSION NO. | VERSION | SYMBOL |
|----------|-------------|-----------|--------|
| IC-3230H | #22 | Europe | EUR |
| | #23 | Italy | ITA |
| | #25 | U.S.A. | USA |
| | #26 | Korea | KOR |
| | #27 | Australia | AUS |
| | #28 | Asia | SEA |

DANGER

NEVER connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. This will ruin the transceiver.

DO NOT expose the transceiver to rain, snow or any liquids.

DO NOT reverse the polarities of the DC power supply when connecting the transceiver.

DO NOT apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the transceiver's front end.



ORDERING PARTS

Be sure to include the following four points when ordering replacement parts:

1. 10-digit order numbers
2. Component part number and name
3. Equipment model name and unit name
4. Quantity required

<SAMPLE ORDER>

| | | | | | |
|------------|-------|-------------|---------|-------------|----------|
| 1130003760 | IC | TC4S81F | IC2340H | MAIN-A UNIT | 1 piece |
| 8810006230 | Screw | OH M2.6 x 4 | IC2340H | Top cover | 6 pieces |

Addresses are provided on the inside back cover for your convenience.

REPAIR NOTES

1. Make sure a problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **DO NOT** transmit power into a signal generator or a sweep generator.
7. **ALWAYS** connect a 40 dB to 50 dB attenuator between the transceiver and a deviation meter or spectrum analyser when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.

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To upgrade quality, all electrical or mechanical parts and internal circuits are subject to change without notice or obligation.

SECTION 1 SPECIFICATIONS

■ GENERAL

- Frequency coverage

| Version | Frequency coverage (MHz) | |
|-----------|---|---|
| | VHF | UHF |
| U.S.A. | 144.00 – 148.00 | 440.00 – 450.00 |
| Europe | 144.00 – 146.00 | 430.00 – 440.00 |
| Asia | 144.00 – 148.00 (RX: 136.00 – 174.00 ^{*1}) | 430.00 – 440.00 |
| Australia | 144.00 – 148.00 | 430.00 – 440.00 |
| Italy | 144.00 – 148.00 (RX: 136.00 – 174.00 ^{*1}) | 430.00 – 440.00 (RX: 400.00 – 479.00 ^{*2}) |

^{*1}Guaranteed 144.00 – 148.00 MHz, ^{*2}Guaranteed 430.00 – 440.00 MHz

- Mode
- Tuning step increments
- Number of memory channels

| | VHF (ch) | UHF (ch) |
|--------------------|----------|----------|
| Memory channels | 50 | 50 |
| Call channels | 1 | 1 |
| Scan edge channels | 2 | 2 |

- Antenna impedance
- Power supply requirement
- Frequency stability
- Usable temperature range
- Dimensions
- Weight

- 50 Ω nominal
- 13.8 V DC ±15 % (negative ground)
- ±10 ppm (–10 °C to +60 °C; +14 °F to +140 °F)
- –10 °C to +60 °C (+14 °F to +140 °F)
- 140 (W) x 40 (H) x 165 (D) mm; 5.5 (W) x 1.6 (H) x 6.5 (D) in
(Projections not included)
- 1.3 kg (2.9 lb)

■ TRANSMITTER

- Modulation system
- Max. frequency deviation
- Spurious emissions
- Microphone impedance
- Output power and current drain
(at 13.8 V DC)

- Variable reactance frequency modulation
- ±5.0 kHz
- Less than –60 dB
- 600 Ω

| | POWER | CURRENT |
|-----|-------|---------|
| VHF | High | 45 W |
| | Low-2 | 10 W |
| | Low-1 | 5 W |
| UHF | High | 35 W |
| | Low-2 | 10 W |
| | Low-1 | 5 W |

■ RECEIVER

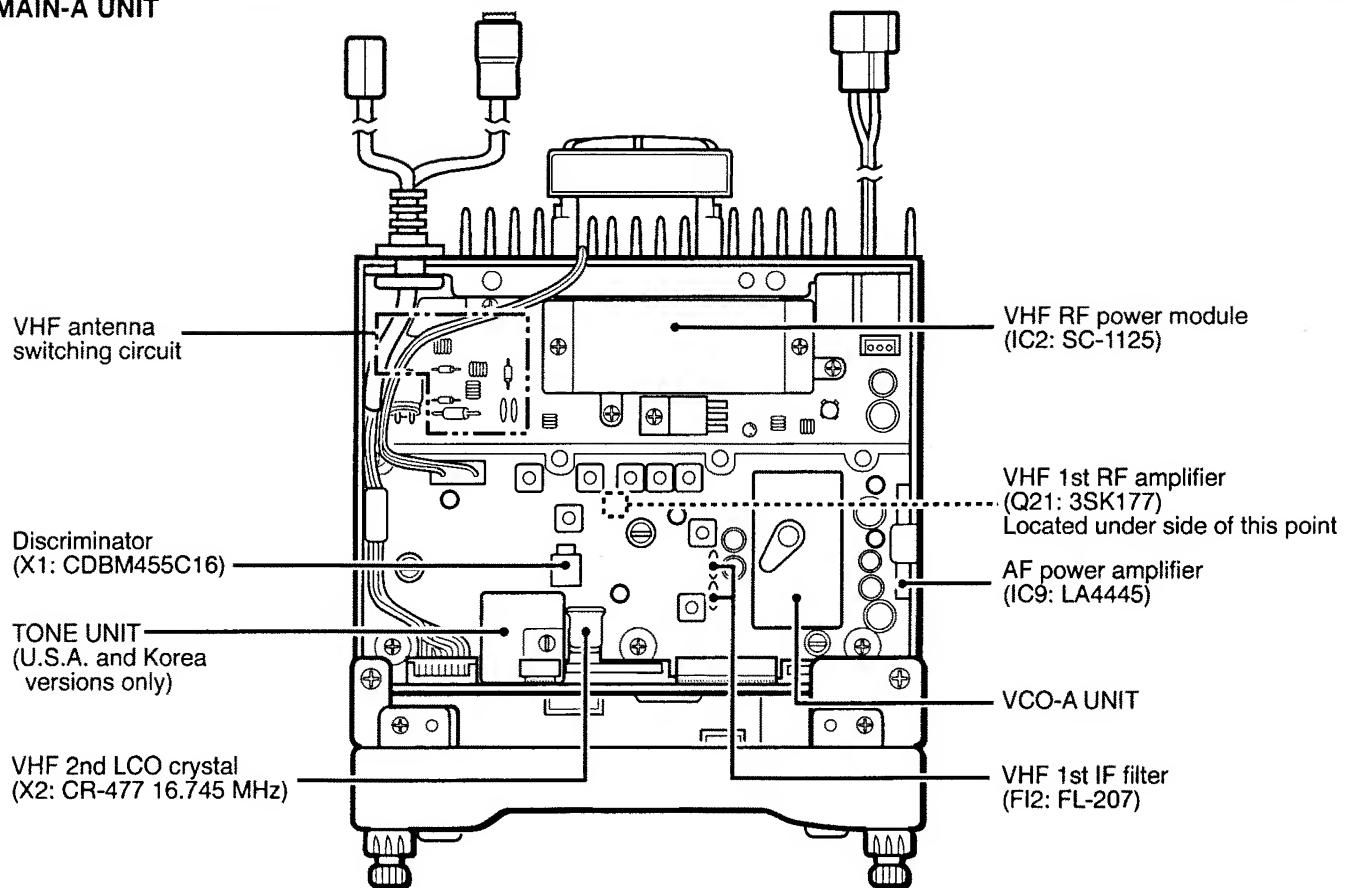
- Receive system
- Intermediate frequencies
- Sensitivity
- Squelch threshold sensitivity
- Selectivity
- Spurious rejection ratio
- Audio output power
- Current drain
- Audio output impedance

- Double-conversion superheterodyne
- 1st 17.2 MHz (VHF)
30.85 MHz (UHF)
- 2nd 455 kHz
- Less than 0.16 µV for 12 dB SINAD
- Less than 0.13 µV
- More than 15 kHz/–6 dB
- Less than 30 kHz/–60 dB
- More than 60 dB
- More than 2.4 W at 10 % distortion with an 8 Ω load
- Max. audio 1.8 A
Stand-by 1.2 A
- 4 to 8 Ω

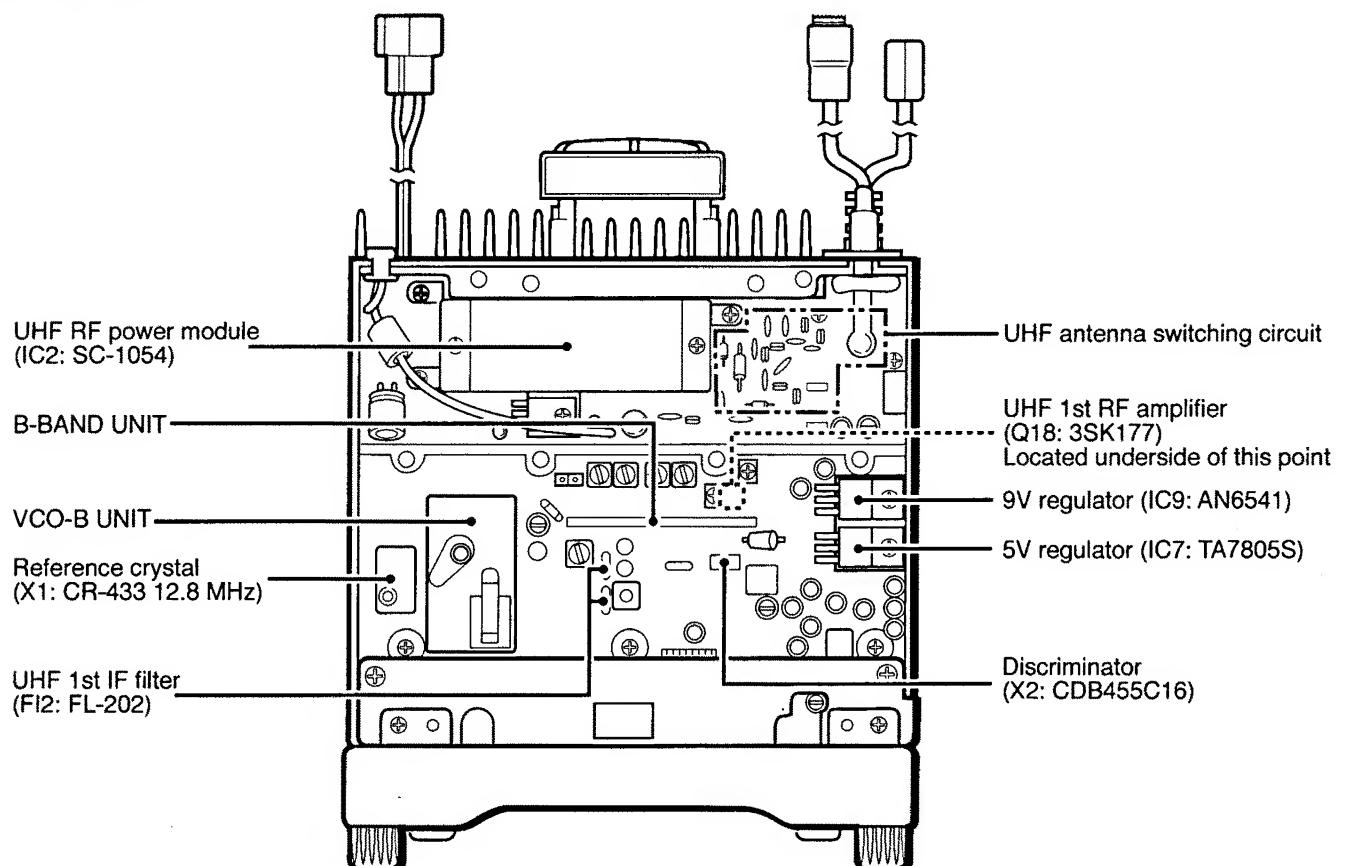
All stated specifications are subject to change without notice or obligation.

SECTION 2 INSIDE VIEWS

• MAIN-A UNIT



• MAIN-B UNIT



SECTION 3 DISASSEMBLY INSTRUCTIONS

• REMOVE THE COVERS (Fig. 3-1)

Remove 12 screws, (a) (black, 4 mm) to take off top and bottom covers. Disconnect the speaker connector (J4) to remove the top cover.

• REMOVE THE FRONT PANEL (Fig. 3-1)

Remove 4 screws, (b) (flat head, 4 mm), disconnect the connectors (J1/J6, J2/J7), and remove the front panel in the direction of the arrow.

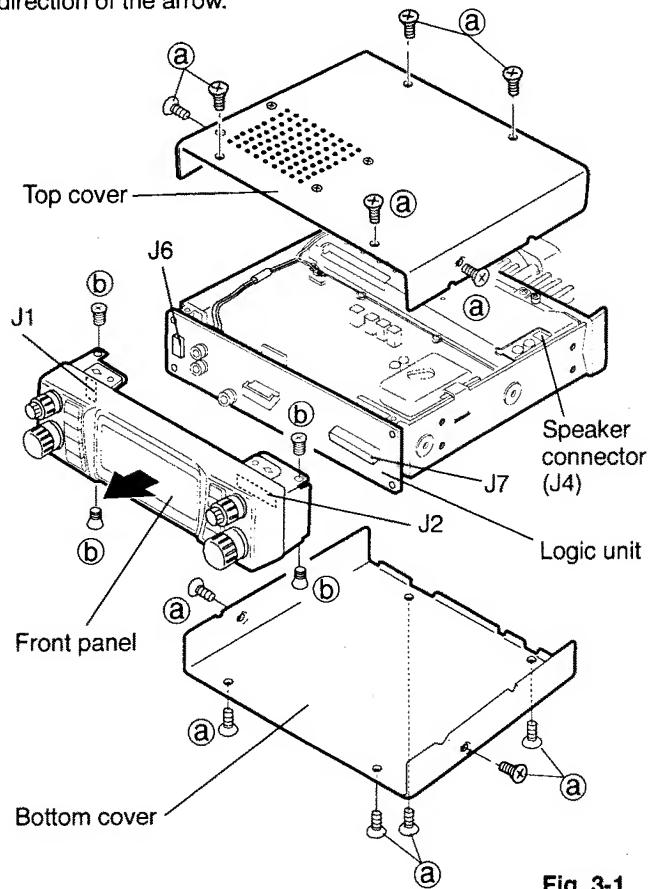


Fig. 3-1

• REMOVE THE LOGIC UNIT (Fig. 3-2)

Remove 4 screws, (c) (pan head, 5 mm), then disconnect J1/J3, J2/J2, J5/"the microphone connector" to separate the LOGIC unit from the chassis.

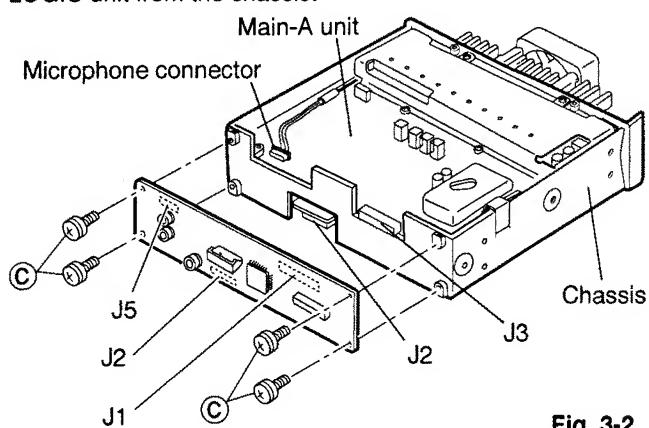


Fig. 3-2

• REMOVE THE MAIN-B UNIT (Fig. 3-3)

- ① Remove 4 screws (d) and 2 screws (e), then remove the shield cover.
- ② Remove screws 3 x (f), 2 x (g) and 1 x (h), then remove the module cover.
- ③ Unsolder the 3 points (incl. 8-pins), then remove screws 5 x (i) and 2 x (j) to lift up the MAIN-B unit.

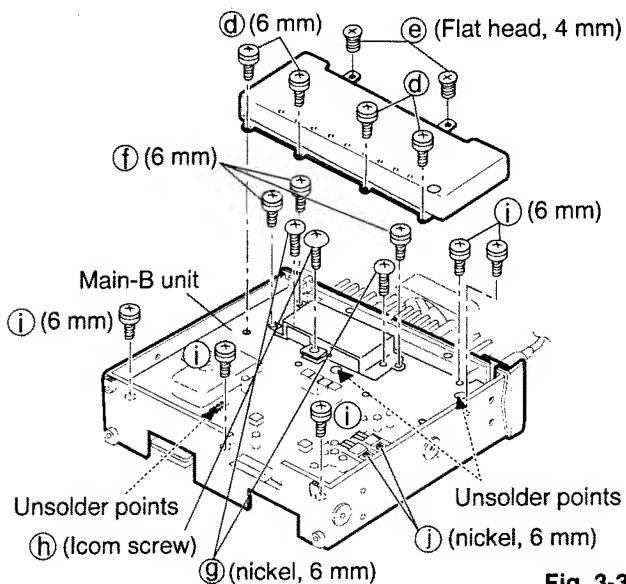


Fig. 3-3

• REMOVE THE MAIN-A UNIT (Fig. 3-4)

- ① Be sure unsolder on the MAIN-B unit. (Step ③ above)
- ② Remove 4 screws, (k) and 2 screws (m), then remove the shield cover.
- ③ Remove screws 2 x (n), 2 x (o) and 1 x (p), then remove the module cover.
- ④ Remove 5 screws (q) and 1 clip, to lift up the MAIN-A unit.

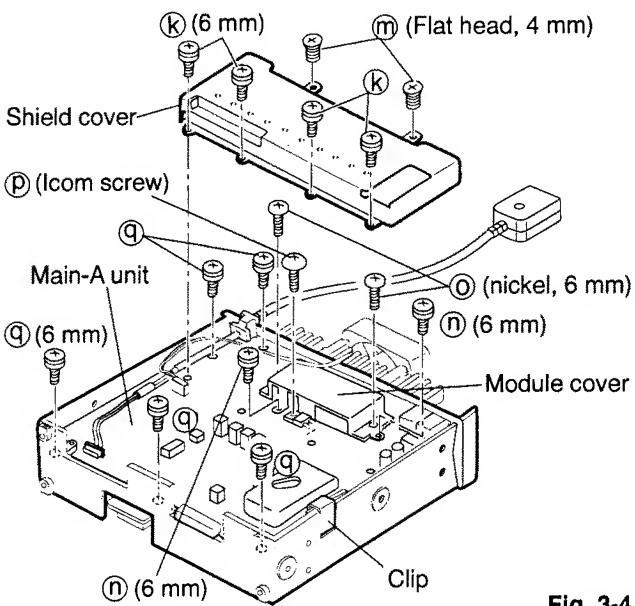


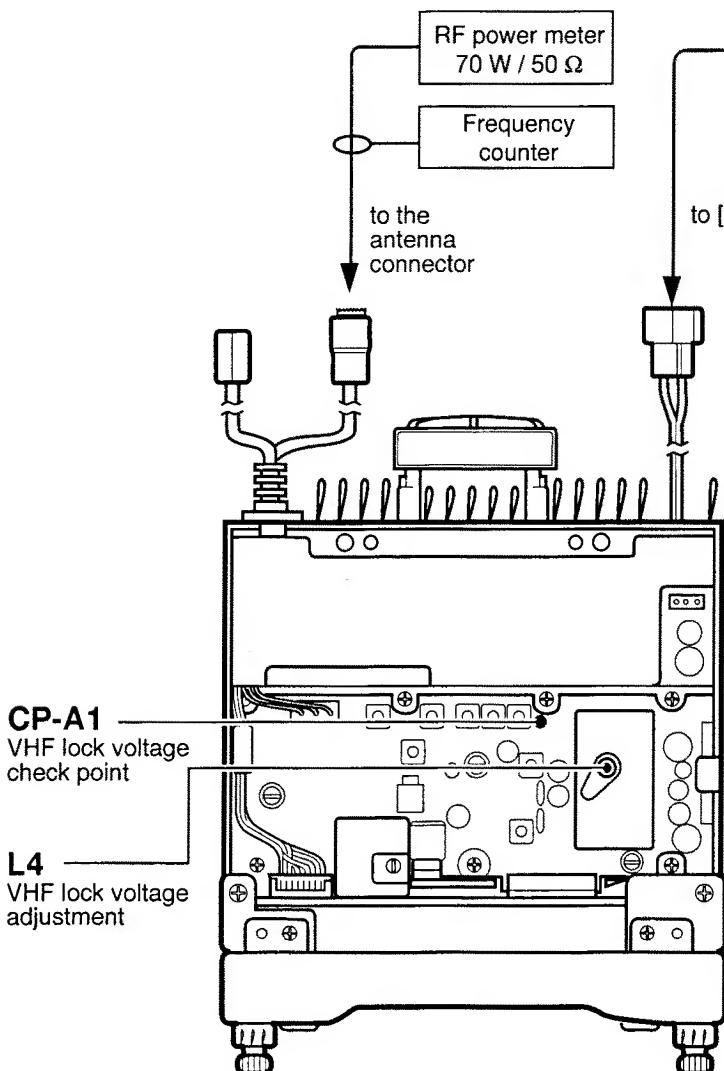
Fig. 3-4

SECTION 4 ADJUSTMENT PROCEDURES

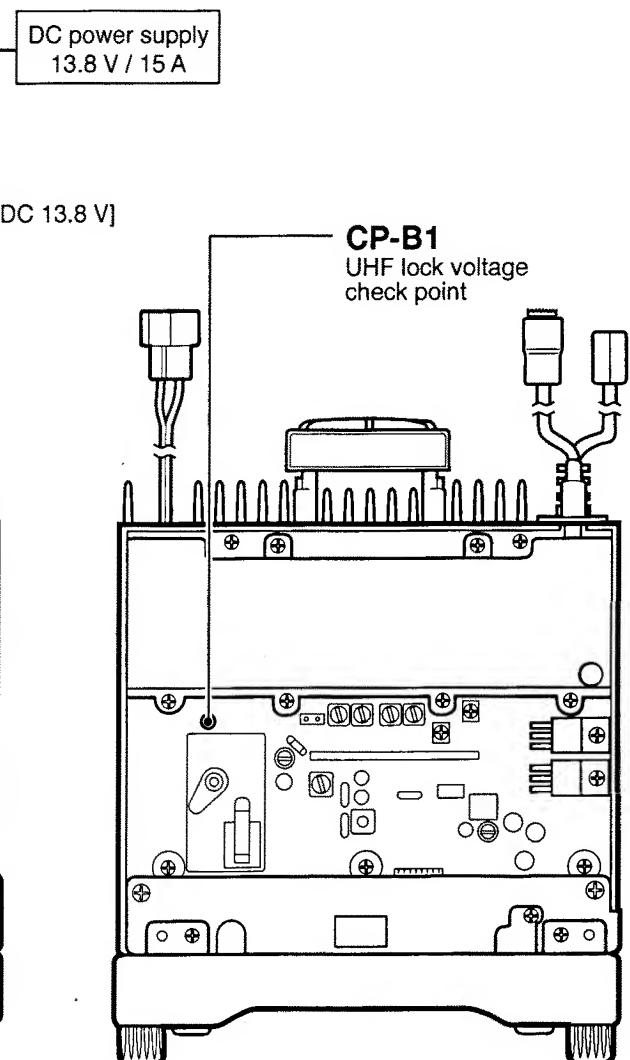
4-1 PLL ADJUSTMENT

| ADJUSTMENT | ADJUSTMENT CONDITIONS | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|---------------------|---|-------------|--|--|------------------|--------|
| | | UNIT | LOCATION | | UNIT | ADJUST |
| REFERENCE FREQUENCY | 1 • UHF display: 440.000 MHz • Connect the RF power meter or a 50 Ω dummy load to the antenna connector. • Simplex • Transmitting | Rear panel | Loosely couple the frequency counter to the antenna connector. | 440.000 MHz ±250 Hz | MAIN-B | Verify |
| VHF LOCK VOLTAGE | 1 • VHF display: 145.000 MHz • Receiving | MAIN-A | Connect the DC voltmeter to CP-A1. | 7.5 V | MAIN-A (VCO-A) | L4 |
| UHF LOCK VOLTAGE | 1 • UHF display: 445.000 MHz (USA version) 435.075 MHz (All other versions) • Receiving | MAIN-B | Connect the DC voltmeter to CP-B1. | 10 V (USA version) 9 V (All other versions) | MAIN-B | Verify |

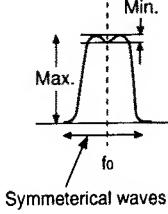
• MAIN-A UNIT



• MAIN-B UNIT

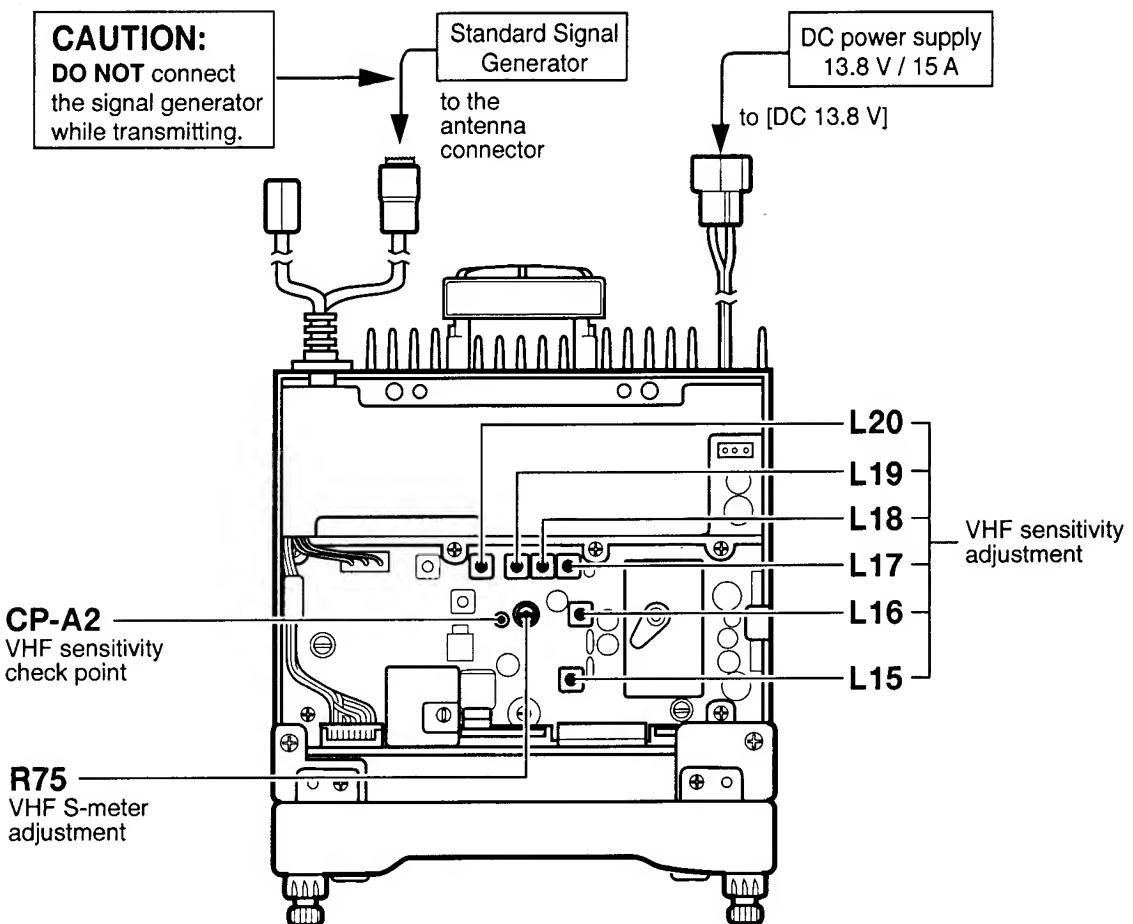


4-2 RECEIVER ADJUSTMENT

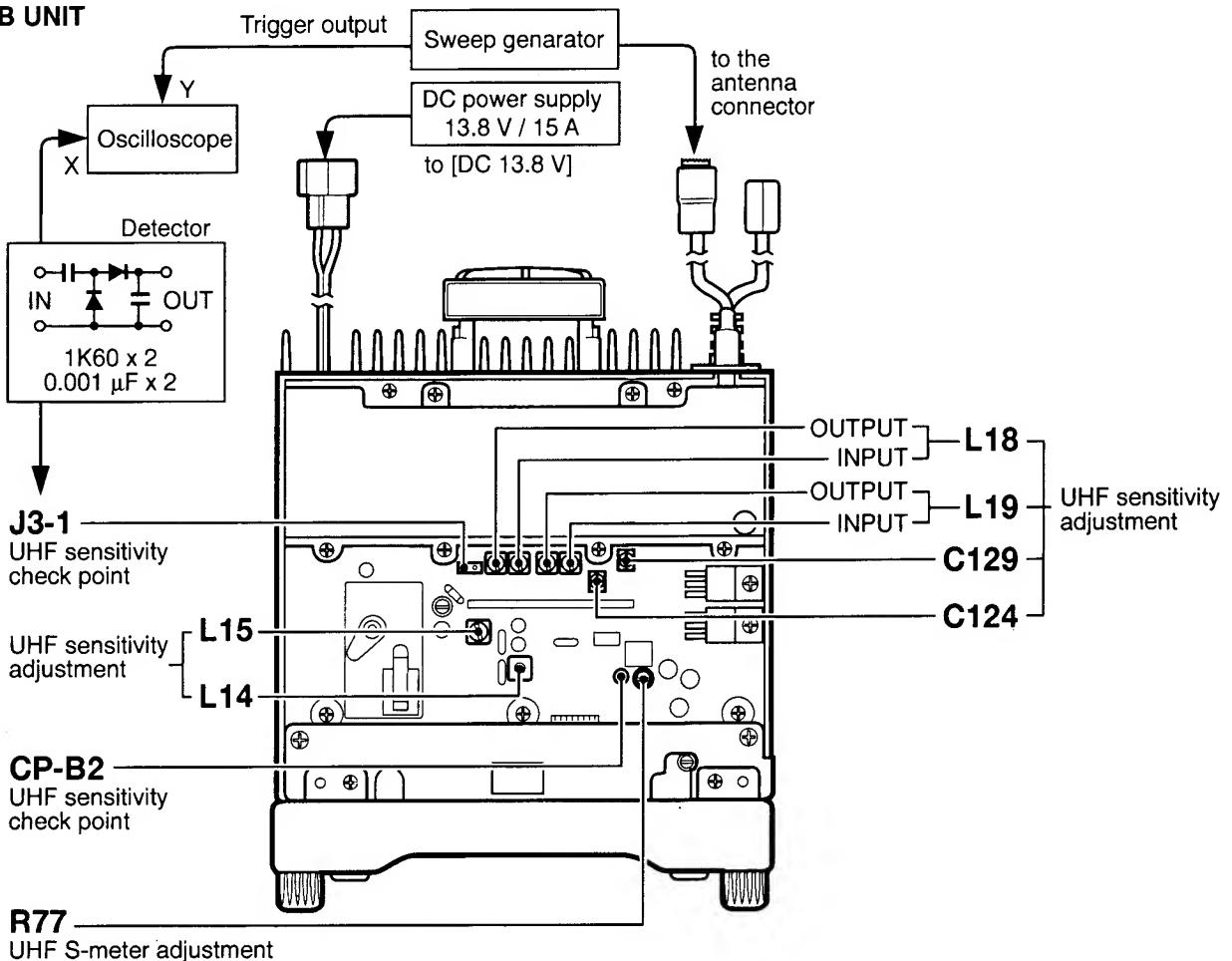
| ADJUSTMENT | | ADJUSTMENT CONDITIONS | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|--|---|--|-------------|---|---|------------------|---------------------------------------|
| | | | UNIT | LOCATION | | UNIT | ADJUST |
| VHF SENSITIVITY | 1 | <ul style="list-style-type: none"> • VHF display: 146.000 MHz (USA, SEA versions) 145.000 MHz (All other versions) • Connect the SSG to the antenna connector and set as: <ul style="list-style-type: none"> Level : 1.0 μV* (-107 dBm) Modulation : 1 kHz Deviation : \pm3.5 kHz • R75 (MAIN-A) : Max. CW • Receiving | MAIN-A | Connect the DC voltmeter to CP-A2. | Maximum DC voltage | MAIN-A | Adjust in sequence L20, L19, L18, L17 |
| | 2 | <ul style="list-style-type: none"> • VHF display: 146.000 MHz (USA, SEA versions) 145.000 MHz (All other versions) • Set the SSG as: Deviation : \pm7.5 kHz | | | | | Adjust in sequence L16, L15 |
| NOTE: Adjust the standard signal generator output level so that the DC voltmeter needle remains at all times in the lowest 30 % of the full range. | | | | | | | |
| UHF SENSITIVITY | 1 | <ul style="list-style-type: none"> • UHF display: 445.000 MHz (USA version) 435.000 MHz (All other versions) • Connect the sweep generator to the antenna connector and set as: <ul style="list-style-type: none"> Sweep level : 22 mV (-20 dBm) Center frequency: Same as the displayed frequency Sweep bandwidth: 10 MHz or 20 MHz • Receiving | MAIN-B | Connect the oscilloscope to J3, pin 1 through the detector. | Adjust as follows:  Symmetrical waves | MAIN-B | C129, C124, L19, L18 |
| | 2 | <ul style="list-style-type: none"> • Connect the SSG to the antenna connector and set as: <ul style="list-style-type: none"> Level : 1.0 μV* (-107 dBm) Modulation : 1 kHz Deviation : \pm7.5 kHz • R77 (MAIN-B) : Max. CW | | | | | L15, L14 |
| NOTE: Adjust the standard signal generator output level so that the DC voltmeter needle remains at all times in the lowest 30 % of the full range. | | | | | | | |
| S-METER | 1 | <ul style="list-style-type: none"> • VHF display: 146.000 MHz (USA, SEA versions) 145.000 MHz (All other versions) • Connect the SSG to the antenna connector and set as: <ul style="list-style-type: none"> Level : 1.0 μV* (-107 dBm) Modulation : 1 kHz Deviation : \pm3.5 kHz • Receiving | Front Panel | LCD display [V DISPLAY] | S3 (4 dots) | MAIN-A | R75 |
| | 2 | <ul style="list-style-type: none"> • UHF display: 445.000 MHz (USA version) 435.000 MHz (All other versions) | | LCD display [U DISPLAY] | S3 (4 dots) | | MAIN-B R77 |

* This output level of the standard signal generator (SSG) is indicated as SSG's open circuit.

• MAIN-A UNIT



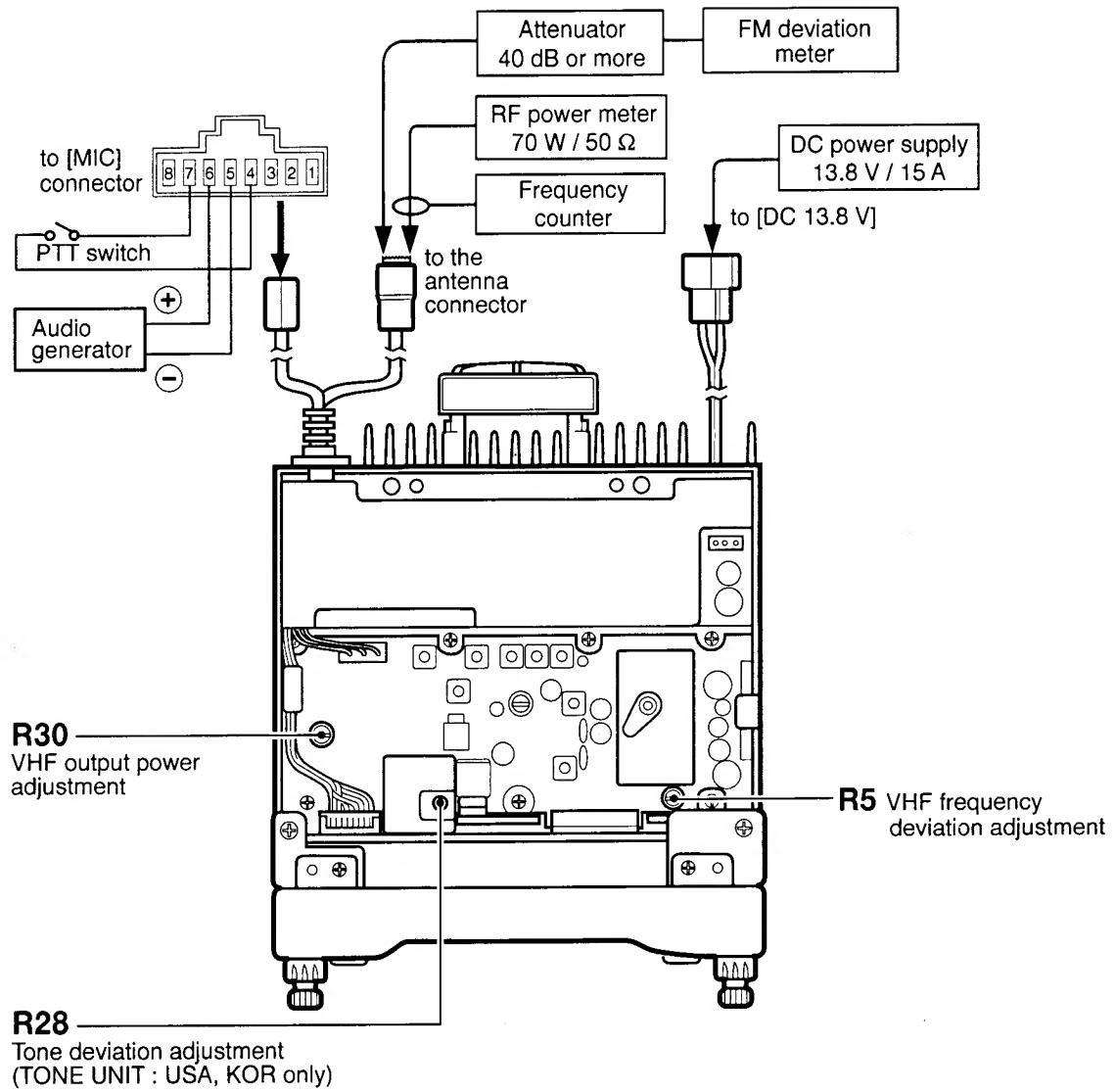
• MAIN-B UNIT



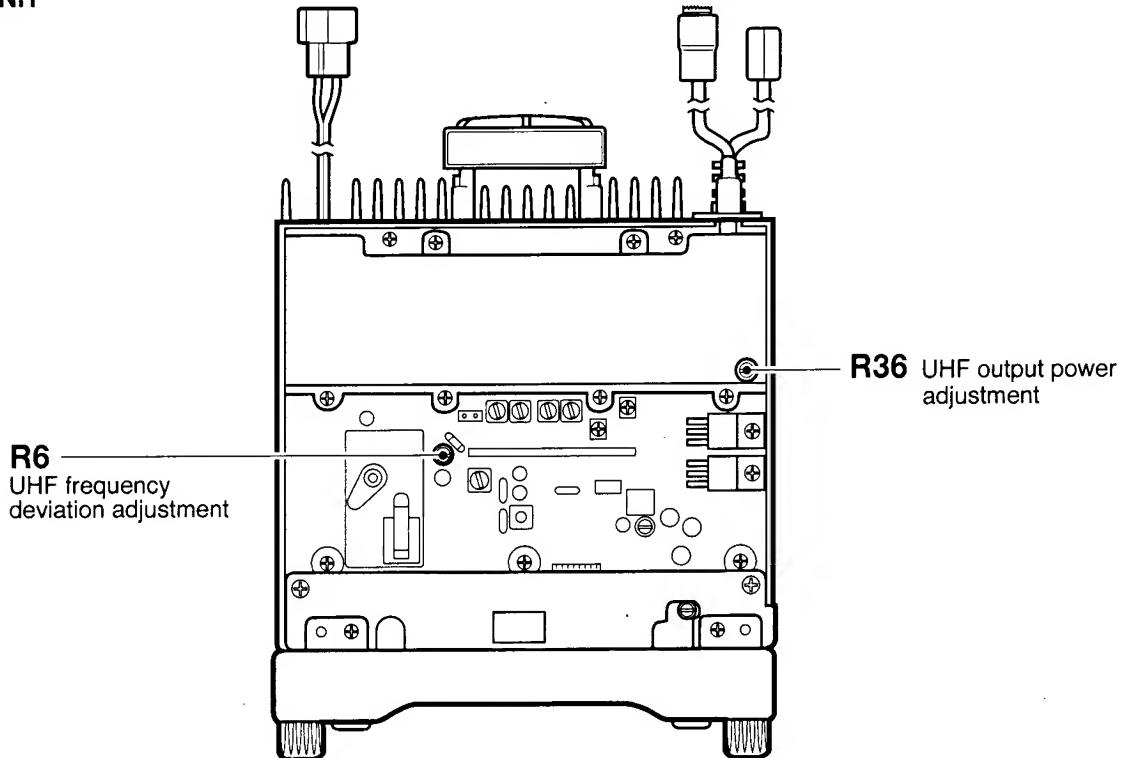
4-3 TRANSMITTER ADJUSTMENT

| ADJUSTMENT | | ADJUSTMENT CONDITIONS | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|--|---|---|-------------|---|----------|------------------|--------|
| | | | UNIT | LOCATION | | UNIT | ADJUST |
| VHF OUTPUT POWER | 1 | <ul style="list-style-type: none"> • VHF display: 146.000 MHz (USA, SEA versions) 145.000 MHz (All other versions) • [HI/LOW] switch : HI • Simplex • Transmitting | Rear panel | Connect the RF power meter to the antenna connector. | 45 W | MAIN-A | R30 |
| | 2 | <ul style="list-style-type: none"> • [HI/LOW] switch : LOW1 | | | 4 – 6 W | | Verify |
| | 3 | <ul style="list-style-type: none"> • [HI/LOW] switch : LOW2 | | | 9 – 11 W | | |
| UHF OUTPUT POWER | 1 | <ul style="list-style-type: none"> • UHF display: 445.000 MHz (USA version) 435.000 MHz (All other versions) • [HI/LOW] switch : HI | | | 35 W | MAIN-B | R36 |
| | 2 | <ul style="list-style-type: none"> • [HI/LOW] switch : LOW1 | | | 4 – 6 W | | Verify |
| | 3 | <ul style="list-style-type: none"> • [HI/LOW] switch : LOW2 | | | 9 – 11 W | | |
| FREQUENCY DEVIATION | 1 | <ul style="list-style-type: none"> • VHF display: 146.000 MHz (USA, SEA versions) 145.000 MHz (All other versions) • [HI/LOW] switch : HI • [TONE] switch : OFF • Connect the audio generator to the microphone connector and set as: 20 mV/1.0 kHz • Set the FM deviation meter as: HPF : 50 Hz LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2 • Transmitting | Rear panel | Connect the FM deviation meter to the antenna connector through the attenuator. | ±4.8 kHz | MAIN-A | R5 |
| | 2 | <ul style="list-style-type: none"> • UHF display: 445.000 MHz (USA version) 435.000 MHz (All other versions) | | | ±4.8 kHz | | R6 |
| TONE DEVIATION (USA, KOR versions only) | 1 | <ul style="list-style-type: none"> • UHF display: 445.000 MHz (USA version) 435.000 MHz (KOR version) • [TONE] switch : ON • Apply no signal to the microphone connector. • Set the tone frequency as : 88.5 Hz • Set the FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2 • Transmitting | Rear panel | Connect the FM deviation meter to the antenna connector through the attenuator. | ±0.8 kHz | TONE | R28 |

• MAIN-A UNIT



• MAIN-B UNIT



SECTION 5 PARTS LIST

[DISPLAY UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-------------------------|
| IC1 | 1130004190 | S.IC | LC7582A |
| IC2 | 1130004190 | S.IC | LC7582A |
| Q1 | 1510000690 | S.TRANSISTOR | 2SA1734 (TE12R) |
| Q2 | 1510000690 | S.TRANSISTOR | 2SA1734 (TE12R) |
| Q3 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| D1 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D2 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D3 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D4 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D5 | 1750000390 | S.DIODE | 1SS353 TE-17 |
| R1 | 7030003650 | S.RESISTOR | ERJ3GEYJ 583 V (58 kΩ) |
| R3 | 7030000020 | S.RESISTOR | MCR10EZHJ 1 Ω (010) |
| R4 | 7030000020 | S.RESISTOR | MCR10EZHJ 1 Ω (010) |
| R5 | 7030000020 | S.RESISTOR | MCR10EZHJ 1 Ω (010) |
| R6 | 7030000020 | S.RESISTOR | MCR10EZHJ 1 Ω (010) |
| R8 | 7030003650 | S.RESISTOR | ERJ3GEYJ 583 V (58 kΩ) |
| R9 | 7030001130 | S.RESISTOR | MCR50JZHJ 100 Ω (101) |
| R10 | 7030001130 | S.RESISTOR | MCR50JZHJ 100 Ω (101) |
| R11 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R12 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R13 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| C1 | 4030006830 | S.CERAMIC | C1608 SL 1H 331J-T-A |
| C2 | 4030006830 | S.CERAMIC | C1608 SL 1H 331J-T-A |
| C3 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C4 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| DS1 | 5030001090 | LCD | FTD-12634AAH |
| DS3 | 5080000330 | LAMP | HRS-7219A-RE |
| DS4 | 5080000330 | LAMP | HRS-7219A-RE |
| DS5 | 5080000330 | LAMP | HRS-7219A-RE |
| DS6 | 5080000330 | LAMP | HRS-7219A-RE |
| W1 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| J1 | 6510012690 | CONNECTOR | 53020-0810 |
| J2 | 6510016560 | S.CONNECTOR | 3-176314-0 |
| J3 | 6510016180 | S.CONNECTOR | 52485-1090 |
| S1 | 2260002050 | S.SWITCH | EVQ-PJX 05M [M/CALL] |
| S2 | 2260002050 | S.SWITCH | EVQ-PJX 05M [V/MHz] |
| S3 | 2260002050 | S.SWITCH | EVQ-PJX 05M [M/CALL] |
| S4 | 2260002050 | S.SWITCH | EVQ-PJX 05M [V/MHz] |
| S5 | 2260002050 | S.SWITCH | EVQ-PJX 05M [POWER] |
| S6 | 2260002050 | S.SWITCH | EVQ-PJX 05M [MUTE] |
| S7 | 2260002050 | S.SWITCH | EVQ-PJX 05M [SET] |
| S8 | 2260002050 | S.SWITCH | EVQ-PJX 05M [SPCH] |
| S9 | 2260002050 | S.SWITCH | EVQ-PJX 05M [DTMF] |
| S10 | 2260002050 | S.SWITCH | EVQ-PJX 05M [DUP] |
| EP1 | 0910041281 | PCB | B 4101A |
| EP2 | 8930030861 | LCD CONTACT | SRCN-1479SC2 |

[VR-A BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|---------------------------------------|
| D1 | 1750000010 | S.DIODE | 1SS181 (TE85R) |
| R1 | 7210002380 | VARIABLE | TP96D00A-10KB10KA20F (1481) [VOL/SQL] |
| J1 | 6510016590 | S.CONNECTOR | 53309-1890 |
| S1 | 2250000160 | ENCODER | TP90N00AE20-15F (1352) [Tuning dial] |
| EP1 | 0910041290 | PCB | B 4102 |

[VR-B BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|---------------------------------------|
| D1 | 1750000010 | S.DIODE | 1SS181 (TE85R) |
| R1 | 7210002380 | VARIABLE | TP96D00A-10KB10KA20F (1481) [VOL/SQL] |
| J1 | 6510016090 | S.CONNECTOR | 53309-1090 |
| S1 | 2250000160 | ENCODER | TP90N00AE20-15F (1352) [Tuning dial] |
| EP1 | 0910041300 | PCB | B 4103 |

[LOGIC UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| IC1 | 1130005720 | S.IC | TC7W04F (TE12L) |
| IC2 | 1110000960 | S.IC | NJM4558M(T1) |
| IC5 | 1190000260 | S.IC | 24LC08BTI/SN |
| IC8 | 1140003990 | S.IC | HD40449A24H |
| IC7 | 1130007340 | S.IC | S-80745SL-A9-T1 |
| Q1 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q2 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q3 | 1530000180 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q4 | 1590001390 | S.FET | 2SJ144-Y (TE85R) |
| Q5 | 1590001390 | S.FET | 2SJ144-Y (TE85R) |
| Q8 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q7 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q8 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q9 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q10 | 1590001390 | S.FET | 2SJ144-Y (TE85R) |
| Q11 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q12 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q13 | 1590000410 | S.TRANSISTOR | RN2404 (TE85R) |
| Q14 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q15 | 1590001390 | S.FET | 2SJ144-Y (TE85R) |
| Q18 | 1590001390 | S.FET | 2SJ144-Y (TE85R) |
| Q17 | 1510000110 | S.TRANSISTOR | 2SA1162-Y (TE85R) |
| Q18 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q19 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q20 | 1510000110 | S.TRANSISTOR | 2SA1162-Y (TE85R) |
| Q21 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q22 | 1590000410 | S.TRANSISTOR | RN2404 (TE85R) |
| Q23 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| D3 | 1750000390 | S.DIODE | 1SS353 TE-17 |
| D4 | 1730002280 | S.ZENER | MA8091-M(TX) |

S.=Surface mount

[LOGIC UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|---|
| D5 | 1750000070 | S.DIODE | 1SS226 (TE85R) |
| D6 | 1750000010 | S.DIODE | 1SS181 (TE85R) |
| D7 | 1750000390 | S.DIODE | 1SS353 TE-17 |
| D8 | 1750000010 | S.DIODE | 1SS181 (TE85R) (SEA) |
| | 1750000030 | S.DIODE | 1SS187 (TE85R) (KOR, AUS) |
| | 1750000040 | S.DIODE | 1SS190 (TE85R) (EUR, ITA, USA) |
| D10 | 1750000030 | S.DIODE | 1SS187 (TE85R) (KOR) |
| | 1750000040 | S.DIODE | 1SS190 (TE85R) (EUR, ITA) |
| D12 | 1750000390 | S.DIODE | 1SS353 TE-17 (ITA, USA, SEA) |
| D13 | 1750000390 | S.DIODE | 1SS353 TE-17 (ITA, USA, SEA) |
| D14 | 1750000390 | S.DIODE | 1SS353 TE-17 (USA, SEA) |
| D15 | 1750000390 | S.DIODE | 1SS353 TE-17 (USA) |
| D16 | 1710000600 | DIODE | 1SS254 (EUR, ITA, KOR, AUS, SEA) |
| D17 | 1710000600 | DIODE | 1SS254 (EUR, AUS) |
| D18 | 1750000390 | S.DIODE | 1SS353 TE-17 (EUR, USA, AUS, SEA) |
| D19 | 1750000390 | S.DIODE | 1SS353 TE-17 (EUR, USA, AUS, SEA) |
| D20 | 1750000390 | S.DIODE | 1SS353 TE-17 (EUR, ITA, KOR, AUS, SEA) |
| X1 | 6050008960 | S.XTAL | CR-478 (3.987456MHz) |
| R1 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R2 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R3 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R4 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R5 | 7030003200 | S.RESISTOR | ERJ3GEYJ 100 V (10 Ω) |
| R6 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R7 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R8 | 7030003610 | S.RESISTOR | ERJ3GEYJ 273 V (27 kΩ) |
| R9 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R10 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R11 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R12 | 7030003610 | S.RESISTOR | ERJ3GEYJ 273 V (27 kΩ) |
| R13 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R14 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R15 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R16 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R17 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R18 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R19 | 7030003470 | S.RESISTOR | ERJ3GEYJ 182 V (1.8 kΩ) |
| R20 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R21 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |
| R22 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R23 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R24 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R25 | 7030003840 | S.RESISTOR | ERJ3GEYJ 225 V (2.2 MΩ) |
| R26 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R27 | 7030003840 | S.RESISTOR | ERJ3GEYJ 225 V (2.2 MΩ) |
| R28 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R29 | 7310003560 | S.TRIMMER | RV-220 (RH03AVAJ-1223) |
| R30 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R31 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R32 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R33 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 Ω) |
| R34 | 7030003420 | S.RESISTOR | ERJ3GEYJ 881 V (680 Ω) |
| R35 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R36 | 7030003390 | S.RESISTOR | ERJ3GEYJ 391 V (390 Ω) |
| R37 | 7030003770 | S.RESISTOR | ERJ3GEYJ 584 V (560 kΩ) |
| R38 | 7030003750 | S.RESISTOR | ERJ3GEYJ 394 V (390 kΩ) |
| R39 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R40 | 7030003790 | S.RESISTOR | ERJ3GEYJ 824 V (820 kΩ) |
| R41 | 7030003610 | S.RESISTOR | ERJ3GEYJ 273 V (27 kΩ) |
| R42 | 7030003710 | S.RESISTOR | ERJ3GEYJ 184 V (180 kΩ) |
| R43 | 7030003550 | S.RESISTOR | ERJ3GEYJ 822 V (8.2 kΩ) |
| R44 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R45 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |

[LOGIC UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-------------------------|
| R46 | 7030003670 | S.RESISTOR | ERJ3GEYJ 823 V (82 kΩ) |
| R47 | 7030003670 | S.RESISTOR | ERJ3GEYJ 823 V (82 kΩ) |
| R48 | 7030003670 | S.RESISTOR | ERJ3GEYJ 823 V (82 kΩ) |
| R49 | 7030003450 | S.RESISTOR | ERJ3GEYJ 122 V (1.2 kΩ) |
| R50 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R51 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R52 | 7030003620 | S.RESISTOR | ERJ3GEYJ 333 V (33 kΩ) |
| R53 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R54 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R55 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R56 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R57 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R58 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R59 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R60 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R61 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R62 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R63 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R64 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R65 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R66 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R67 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R68 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R69 | 7410000750 | S.ARRAY | EXB-V4 104JV (100 kΩ) |
| R70 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R71 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R72 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R73 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R74 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R75 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R76 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R78 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R79 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R80 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R81 | 7030003840 | S.RESISTOR | ERJ3GEYJ 225 V (2.2 MΩ) |
| R82 | 7030003680 | S.RESISTOR | ERJ3GEYJ 683 V (68 kΩ) |
| R83 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R84 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R85 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R86 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R87 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R88 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R89 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R90 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R91 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R92 | 7030003880 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R93 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R94 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R95 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R96 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R97 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R98 | 7030003690 | S.RESISTOR | ERJ3GEYJ 124 V (120 kΩ) |
| R99 | 7030003680 | S.RESISTOR | ERJ3GEYJ 683 V (68 kΩ) |
| R100 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R101 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R102 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R103 | 7410000720 | S.ARRAY | EXB-V8 473JV (47 kΩ) |
| R107 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R108 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R109 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R110 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R111 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R112 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R113 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R114 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R115 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R116 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R117 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R118 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R119 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R120 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R121 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R122 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R123 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R124 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R125 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |

S.=Surface mount

[LOGIC UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-------------------------|
| R126 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R127 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R128 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R129 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R130 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R131 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R132 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R133 | 7030003690 | S.RESISTOR | ERJ3GEYJ 124 V (120 kΩ) |
| R134 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R135 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R136 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R137 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R138 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R139 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R140 | 7030003790 | S.RESISTOR | ERJ3GEYJ 824 V (820 kΩ) |
| R141 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R142 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R143 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R144 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R145 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R146 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R147 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |

[LOGIC UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|----------------------------|
| C55 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| W1 | 7120000390 | JUMPER | JPW 01H (ITA, USA, SEA) |
| W2 | 8900004780 | CABLE | OPC-462 [MIC] |
| W3 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W4 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| J1 | 6510013140 | CONNECTOR | 19R-JE |
| J2 | 6510013940 | CONNECTOR | 15R-JE |
| J3 | 6510012720 | CONNECTOR | 53020-1410 |
| J4 | 6510018570 | S.CONNECTOR | 52465-1291 |
| J5 | 6510016200 | CONNECTOR | 53047-0810 |
| J6 | 6510016580 | S.CONNECTOR | 52588-1890 |
| J7 | 6510016550 | S.CONNECTOR | 8-178313-0 |
| EP1 | 0910041273 | PCB | B 4100C |

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|----------------|----------------------|
| C1 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C2 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C3 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C4 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C5 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C6 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C7 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C8 | 4030008880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C9 | 4030008880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C10 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C11 | 4510004640 | S.ELECTROLITIC | ECEV1CA470P |
| C12 | 4510004630 | S.ELECTROLITIC | ECEV1CA100R |
| C13 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C14 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C15 | 4030008880 | S.CERAMIC | C1608 JB 1C 223K-T-A |
| C16 | 4030008870 | S.CERAMIC | C1608 JB 1H 222K-T-A |
| C17 | 4030008920 | S.CERAMIC | C1608 JB 1C 473K-T-A |
| C18 | 4030008920 | S.CERAMIC | C1608 JB 1C 473K-T-A |
| C19 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C20 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C21 | 4510004440 | S.ELECTROLITIC | ECEV1HA010R |
| C22 | 4030008900 | S.CERAMIC | C1608 JB 1C 333K-T-A |
| C23 | 4030007020 | S.CERAMIC | C1608 CH 1H 120J-T-A |
| C24 | 4030008980 | S.CERAMIC | C2012 JB 1C 104K-T-A |
| C25 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C26 | 4030009490 | S.CERAMIC | C1608 JB 1H 821K-T-A |
| C27 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C28 | 4030008850 | S.CERAMIC | C1608 JB 1H 332K-T-A |
| C29 | 4030006740 | S.CERAMIC | C1608 SL 1H 820J-T-A |
| C30 | 4510004640 | S.ELECTROLITIC | ECEV1CA470P |
| C31 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C32 | 4030008880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C33 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C34 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C35 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C36 | 4550002950 | S.TANTALUM | TESVA 0J 335M1-8L |
| C37 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C38 | 4030008680 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C39 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C40 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C41 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C43 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C44 | 4550000530 | S.TANTALUM | TESVA 1V 104M1-8L |
| C45 | 4030007030 | S.CERAMIC | C1608 CH 1H 150J-T-A |
| C46 | 4030007030 | S.CERAMIC | C1608 CH 1H 150J-T-A |
| C47 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C48 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C49 | 4510005590 | S.ELECTROLITIC | ECEV0JA331P |
| C51 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C52 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C53 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C54 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|-------------|--------------|----------------------|
| IC1 | 1130004200 | S.IC | TC4S66F (TE85R) |
| IC2 | 1150000910 | IC | SC1125 |
| IC3 | 1110003340 | S.IC | μPC358GR-T1 |
| IC4 | 1110002200 | S.IC | MC3372MR |
| IC5 | 1130004730 | S.IC | BU4066BF-T1 |
| IC8 | 1130005810 | S.IC | BU4094BF-T1 |
| IC7 | 1130005810 | S.IC | BU4094BF-T1 |
| IC8 | 1130003780 | S.IC | TC4S81F (TE85R) |
| IC9 | 1110002540 | IC | LA4445 |
| Q1 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q2 | 1510000690 | S.TRANSISTOR | 2SA1734 (TE12R) |
| Q3 | 1530002050 | S.TRANSISTOR | 2SC3681-TA |
| Q4 | 1530002030 | S.TRANSISTOR | 2SC3772-3-TA |
| Q5 | 1580000360 | S.FET | 2SK209-Y (TE85R) |
| Q6 | 1510000110 | S.TRANSISTOR | 2SA1162-Y (TE85R) |
| Q7 | 1530002030 | S.TRANSISTOR | 2SC3772-3-TA |
| Q8 | 1580000390 | TRANSISTOR | MRF-559 |
| Q9 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q10 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q11 | 1520000390 | TRANSISTOR | 2SB1135 R |
| Q12 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q13 | 1590000380 | S.FET | 2SJ108-Y (TE85R) |
| Q14 | 15300002030 | S.TRANSISTOR | 2SC3772-3-TA |
| Q15 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q16 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q17 | 1530001950 | S.TRANSISTOR | 2SC2712-GR (TE85R) |
| Q18 | 1580000830 | S.TRANSISTOR | FMG2 T149 |
| Q19 | 1580000550 | S.FET | 3SK241-(TX) |
| Q20 | 15300002030 | S.TRANSISTOR | 2SC3772-3-TA |
| Q21 | 1580000360 | S.FET | 3SK177-T2B U73 |
| Q22 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q24 | 1590000460 | S.TRANSISTOR | RN1402 (TE85R) |
| Q25 | 1590000460 | S.TRANSISTOR | RN1402 (TE85R) |
| Q28 | 1590001000 | S.TRANSISTOR | RN2427 (TE85R) |
| Q27 | 1590001000 | S.TRANSISTOR | RN2427 (TE85R) |
| Q28 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q29 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q30 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q31 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q32 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q33 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q34 | 1530002550 | S.TRANSISTOR | 2SC3328-B (TE85R) |
| Q35 | 1530002550 | S.TRANSISTOR | 2SC3328-B (TE85R) |
| Q36 | 1530002550 | S.TRANSISTOR | 2SC3328-B (TE85R) |
| Q37 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q38 | 1520000200 | S.TRANSISTOR | 2SB798-T2 DK |

S.=Surface mount

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|---------------|-------------------------|
| D1 | 1750000060 | S.DIODE | 1SS198 (TE85R) |
| D3 | 1750000080 | S.DIODE | 1SS153-T2 |
| D4 | 1750000080 | S.DIODE | 1SS153-T2 |
| D5 | 1750000080 | S.DIODE | 1SS198 (TE85R) |
| D6 | 1790000490 | S.DIODE | HSM88AS-TR |
| D7 | 1790000490 | S.DIODE | HSM88AS-TR |
| D8 | 1710000310 | DIODE | MI407 |
| D9 | 1710000290 | DIODE | MI308 |
| D10 | 1710000290 | DIODE | MI308 |
| D11 | 1750000070 | S.DIODE | 1SS226 (TE85R) |
| D12 | 1750000060 | S.DIODE | 1SS198 (TE85R) |
| D13 | 1730000730 | S.ZENER | RD8.2M-T2B2 |
| D14 | 1750000070 | S.DIODE | 1SS226 (TE85R) |
| D15 | 1790000490 | S.DIODE | HSM88AS-TR |
| D16 | 1790000450 | S.DIODE | MA862(TX) |
| D17 | 1720000220 | S.VARICAP | 1SV166-T2B |
| D18 | 1720000220 | S.VARICAP | 1SV166-T2B |
| D19 | 1720000220 | S.VARICAP | 1SV166-T2B |
| D20 | 1720000220 | S.VARICAP | 1SV166-T2B |
| D21 | 1790000450 | S.DIODE | MA862(TX) |
| D22 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D23 | 1730000730 | S.ZENER | RD8.2M-T2B2 |
| FI1 | 2020000550 | CERAMIC | CFUM455E |
| FI2 | 2010001670 | XTAL | FL-207 UM-1 (17.200MHz) |
| X1 | 6070000080 | DISCRIMINATOR | CDBM455C16 |
| X2 | 6050008940 | XTAL | CR-477 (18.745MHz) |
| L1 | 6200000830 | S.COIL | LQH 3N 3R3M |
| L2 | 6200003420 | S.COIL | NL 322522T-R15J-3 |
| L3 | 6200000770 | S.COIL | LQN 2A 68NM |
| L4 | 6200000130 | S.COIL | LQN 2A 47NM |
| L5 | 6110001680 | COIL | LA-254 |
| L6 | 6110001550 | COIL | LA-235 |
| L7 | 6110001540 | COIL | LA-234 |
| L8 | 6170000180 | COIL | LW-19 |
| L9 | 6110001610 | COIL | LA-244 |
| L10 | 6110001620 | COIL | LA-245 |
| L11 | 6110001610 | COIL | LA-244 |
| L12 | 6110001550 | COIL | LA-235 |
| L13 | 6110001550 | COIL | LA-235 |
| L14 | 6200000020 | S.COIL | LQH 3N 101K |
| L15 | 6150003150 | COIL | LS-331 |
| L16 | 6150003150 | COIL | LS-331 |
| L17 | 6150002810 | COIL | LS-291 |
| L18 | 6150002810 | COIL | LS-291 |
| L19 | 6150002810 | COIL | LS-291 |
| L20 | 6150002810 | COIL | LS-291 |
| L21 | 6150003120 | COIL | LS-321 |
| L22 | 6150003120 | COIL | LS-321 |
| R1 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R2 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R3 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R4 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R5 | 4610001110 | TRIMMER | EVM-LGGA00 B15 (104) |
| R6 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R7 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R8 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R9 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R10 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R11 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 kΩ) |
| R12 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R13 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R14 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R15 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R16 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R17 | 7030003200 | S.RESISTOR | ERJ3GEYJ 100 V (10 kΩ) |
| R18 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R19 | 7030003420 | S.RESISTOR | ERJ3GEYJ 681 V (680 kΩ) |
| R20 | 7030003700 | S.RESISTOR | ERJ3GEYJ 154 V (150 kΩ) |

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-------------------------|
| R21 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R22 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R23 | 7030003370 | S.RESISTOR | ERJ3GEYJ 271 V (270 kΩ) |
| R24 | 7030003230 | S.RESISTOR | ERJ3GEYJ 180 V (18 kΩ) |
| R25 | 7030003370 | S.RESISTOR | ERJ3GEYJ 271 V (270 kΩ) |
| R26 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R27 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R28 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R29 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R30 | 4610001100 | TRIMMER | EVM-LGGA00 B34 (303) |
| R31 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |
| R32 | 7030003490 | S.RESISTOR | ERJ3GEYJ 272 V (2.7 kΩ) |
| R33 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R34 | 7030003490 | S.RESISTOR | ERJ3GEYJ 272 V (2.7 kΩ) |
| R35 | 7030001010 | S.RESISTOR | MCR50JZHJ 10 Ω (100) |
| R36 | 7030003530 | S.RESISTOR | ERJ3GEYJ 562 V (5.6 kΩ) |
| R37 | 7030001150 | S.RESISTOR | MCR50JZHJ 150 Ω (151) |
| R38 | 7030001190 | S.RESISTOR | MCR50JZHJ 330 Ω (331) |
| R39 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R40 | 7030003340 | S.RESISTOR | ERJ3GEYJ 151 V (150 kΩ) |
| R41 | 7030003620 | S.RESISTOR | ERJ3GEYJ 333 V (33 kΩ) |
| R42 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R43 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R44 | 7030003340 | S.RESISTOR | ERJ3GEYJ 151 V (150 kΩ) |
| R45 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R46 | 7030001130 | S.RESISTOR | MCR50JZHJ 100 Ω (101) |
| R47 | 7030003790 | S.RESISTOR | ERJ3GEYJ 824 V (820 kΩ) |
| R48 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R49 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R50 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R51 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R52 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |
| R53 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R54 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R55 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R57 | 7030003530 | S.RESISTOR | ERJ3GEYJ 562 V (5.6 kΩ) |
| R58 | 7030003470 | S.RESISTOR | ERJ3GEYJ 182 V (1.8 kΩ) |
| R59 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R60 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R61 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R62 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R63 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R64 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R65 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R66 | 7030003430 | S.RESISTOR | ERJ3GEYJ 821 V (820 kΩ) |
| R67 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R68 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R69 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R70 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R71 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R72 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R73 | 7030003700 | S.RESISTOR | ERJ3GEYJ 154 V (150 kΩ) |
| R74 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R75 | 4610001110 | TRIMMER | EVM-LGGA00 B15 (104) |
| R76 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R77 | 7030003840 | S.RESISTOR | ERJ3GEYJ 225 V (2.2 MΩ) |
| R78 | 7030003470 | S.RESISTOR | ERJ3GEYJ 182 V (1.8 kΩ) |
| R79 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R80 | 7030003490 | S.RESISTOR | ERJ3GEYJ 272 V (2.7 kΩ) |
| R81 | 7030003700 | S.RESISTOR | ERJ3GEYJ 154 V (150 kΩ) |
| R82 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R83 | 7030003370 | S.RESISTOR | ERJ3GEYJ 271 V (270 kΩ) |
| R84 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R85 | 7030003550 | S.RESISTOR | ERJ3GEYJ 822 V (8.2 kΩ) |
| R86 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R87 | 7030003880 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R88 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R89 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R90 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R91 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R92 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R93 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R94 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R95 | 7030003650 | S.RESISTOR | ERJ3GEYJ 563 V (56 kΩ) |
| R96 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R97 | 7030003250 | S.RESISTOR | ERJ3GEYJ 270 V (27 kΩ) |

S.=Surface mount

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-------------------------|
| R98 | 7030003230 | S.RESISTOR | ERJ3GEYJ 180 V (18 kΩ) |
| R99 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R100 | 7030003610 | S.RESISTOR | ERJ3GEYJ 273 V (27 kΩ) |
| R101 | 7030003580 | S.RESISTOR | ERJ3GEYJ 153 V (15 kΩ) |
| R102 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R103 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R104 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R105 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R106 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R107 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R108 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R109 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R110 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R111 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R112 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R113 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R114 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R115 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R116 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R117 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R118 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R119 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R120 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R121 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R122 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R123 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R124 | 7030003380 | S.RESISTOR | ERJ3GEYJ 331 V (330 Ω) |
| R125 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R126 | 7030003380 | S.RESISTOR | ERJ3GEYJ 331 V (330 Ω) |
| R127 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R128 | 7030003760 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R129 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R130 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R131 | 7030003740 | S.RESISTOR | ERJ3GEYJ 334 V (330 kΩ) |
| R132 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 Ω) |
| R133 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R134 | 7030003650 | S.RESISTOR | ERJ3GEYJ 563 V (56 kΩ) |
| R135 | 7030003630 | S.RESISTOR | ERJ3GEYJ 393 V (39 kΩ) |
| R136 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R137 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R138 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R139 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R140 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R141 | 7030003740 | S.RESISTOR | ERJ3GEYJ 334 V (330 kΩ) |
| R142 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R143 | 7030003650 | S.RESISTOR | ERJ3GEYJ 563 V (56 kΩ) |
| R144 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 Ω) |
| R145 | 7030003630 | S.RESISTOR | ERJ3GEYJ 393 V (39 kΩ) |
| R146 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R147 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R148 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R149 | 7030003620 | S.RESISTOR | ERJ3GEYJ 333 V (33 kΩ) |
| R150 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R151 | 7030003620 | S.RESISTOR | ERJ3GEYJ 333 V (33 kΩ) |
| R152 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R153 | 7030003620 | S.RESISTOR | ERJ3GEYJ 333 V (33 kΩ) |
| R154 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R155 | 7030003550 | S.RESISTOR | ERJ3GEYJ 822 V (8.2 kΩ) |
| R156 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R157 | 7030003790 | S.RESISTOR | ERJ3GEYJ 824 V (820 kΩ) |
| R158 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |
| R159 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R160 | 7030000100 | S.RESISTOR | MCR10EZH 4.7 Ω (4R7) |
| R161 | 7030000100 | S.RESISTOR | MCR10EZH 4.7 Ω (4R7) |
| R162 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R163 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| C1 | 4550002950 | S.TANTALUM | TESVA 0J 335M1-8L |
| C2 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C3 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C4 | 4030006860 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C5 | 4510003150 | ELECTROLITIC | 35 SS 33UF |
| C6 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C7 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C8 | 4510002640 | ELECTROLITIC | 25 SS 47UF |

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| C9 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C10 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C11 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C12 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C13 | 4030006570 | S.CERAMIC | C1608 SL 1H 060D-T-A |
| C14 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C15 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C16 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C17 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C18 | 4030006850 | S.CERAMIC | C1608 SL 1H 060D-T-A |
| C19 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C20 | 4030006860 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C21 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C22 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C23 | 4030006580 | S.CERAMIC | C1608 SL 1H 070D-T-A |
| C24 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C25 | 4030006860 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C28 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C27 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C28 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C29 | 4030006860 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C31 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C32 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C33 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C34 | 4030006660 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C35 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C36 | 4550000260 | TANTALUM | DN 1V 100M |
| C37 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C38 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C39 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C40 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C41 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C42 | 4010003880 | CERAMIC | DD08 SL 150K 500V |
| C43 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C44 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C45 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C46 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C47 | 4010003890 | CERAMIC | DD08 SL 150K 500V |
| C48 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C49 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C50 | 4010004110 | CERAMIC | DD08 B 471K 500V |
| C51 | 4510001350 | ELECTROLITIC | 16 MS5 10UF |
| C52 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C53 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C54 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C55 | 4010004120 | CERAMIC | DD07 B 102K 500V |
| C56 | 4010003890 | CERAMIC | DD08 SL 180K 500V |
| C57 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C58 | 4010003930 | CERAMIC | DD08 SL 270K 500V |
| C59 | 4010003930 | CERAMIC | DD08 SL 270K 500V |
| C60 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C62 | 4010003890 | CERAMIC | DD08 SL 180K 500V |
| C63 | 4030006700 | S.CERAMIC | C1608 SL 1H 390J-T-A |
| C64 | 4030006660 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C65 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C66 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C67 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C68 | 4030006760 | S.CERAMIC | C1608 SL 1H 121J-T-A |
| C69 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C70 | 4030006710 | S.CERAMIC | C1608 SL 1H 470J-T-A |
| C71 | 4030006660 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C72 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C73 | 4030006680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C74 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C75 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C76 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C77 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C78 | 4510002640 | ELECTROLITIC | 25 SS 47UF |
| C79 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C80 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C81 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C82 | 4030006690 | S.CERAMIC | C1608 SL 1H 330J-T-A |
| C83 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C84 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C85 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C86 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |

S.=Surface mount

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| C87 | 4510002930 | ELECTROLITIC | 50 SS R47UF |
| C88 | 4030006660 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C89 | 4030006720 | S.CERAMIC | C1608 SL 1H 560J-T-A |
| C90 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C91 | 4030006540 | S.CERAMIC | C1608 SL 1H 030C-T-A |
| C92 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C93 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C94 | 4030006690 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C95 | 4030006730 | S.CERAMIC | C1608 SL 1H 680J-T-A |
| C96 | 4030006670 | S.CERAMIC | C1608 SL 1H 270J-T-A |
| C97 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C98 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C99 | 4030006590 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C100 | 4030006630 | S.CERAMIC | C1608 SL 1H 150J-T-A |
| C101 | 4030006510 | S.CERAMIC | C1608 SL 1H 0R5C-T-A |
| C102 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C103 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C104 | 4030006630 | S.CERAMIC | C1608 SL 1H 150J-T-A |
| C105 | 4030006520 | S.CERAMIC | C1608 SL 1H 010C-T-A |
| C106 | 4030006510 | S.CERAMIC | C1608 SL 1H 0R5C-T-A |
| C107 | 4030006600 | S.CERAMIC | C1608 SL 1H 090D-T-A |
| C108 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C109 | 4030006540 | S.CERAMIC | C1608 SL 1H 030C-T-A |
| C110 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C111 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C112 | 4030006630 | S.CERAMIC | C1608 SL 1H 150J-T-A |
| C113 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C114 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C115 | 4030006690 | S.CERAMIC | C1608 SL 1H 330J-T-A |
| C116 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C117 | 4030006640 | S.CERAMIC | C1608 SL 1H 180J-T-A |
| C118 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C119 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C120 | 4030006670 | S.CERAMIC | C1608 SL 1H 270J-T-A |
| C121 | 4030006590 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C122 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C123 | 4030006880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C124 | 4030006630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C125 | 4030006860 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C126 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C127 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C128 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C129 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C130 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C131 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C133 | 4030006860 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C135 | 4030008670 | S.CERAMIC | C2012 JB 1H 562K-T-A |
| C136 | 4030008670 | S.CERAMIC | C2012 JB 1H 562K-T-A |
| C137 | 4030006470 | S.CERAMIC | C2012 JB 1H 153K-T-A |
| C138 | 4030006660 | S.CERAMIC | C2012 JB 1H 333K-T-A |
| C139 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C140 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C141 | 4030006470 | S.CERAMIC | C2012 JB 1H 153K-T-A |
| C142 | 4030006890 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C143 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C144 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C145 | 4030006860 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C146 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C147 | 4030006870 | S.CERAMIC | C2012 JB 1H 562K-T-A |
| C148 | 4030006870 | S.CERAMIC | C2012 JB 1H 562K-T-A |
| C149 | 4030006470 | S.CERAMIC | C2012 JB 1H 153K-T-A |
| C150 | 4030006860 | S.CERAMIC | C2012 JB 1H 333K-T-A |
| C151 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C152 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C153 | 4030006470 | S.CERAMIC | C2012 JB 1H 153K-T-A |
| C154 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C155 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C156 | 4550000270 | S.TANTALUM | TESVA 1E 474M1-8L |
| C157 | 4550000270 | S.TANTALUM | TESVA 1E 474M1-8L |
| C158 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C159 | 4550002890 | S.TANTALUM | TESVA 1A 225M1-8L |
| C160 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C161 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C162 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C163 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C164 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |

[MAIN-A UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|---------------------------------------|
| C165 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C166 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C167 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C168 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C169 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C170 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C171 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C172 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C173 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C174 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C175 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C176 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C177 | 4510002380 | ELECTROLITIC | 16 SS 470UF (10X12.5) |
| C178 | 4510002640 | ELECTROLITIC | 25 SS 47UF |
| C179 | 4510002440 | ELECTROLITIC | 16 SS 220UF (8X11) |
| C180 | 4510002640 | ELECTROLITIC | 25 SS 47UF |
| C181 | 4510002730 | ELECTROLITIC | 10 SS 100UF |
| C182 | 4510002760 | ELECTROLITIC | 10 SS 470UF |
| C183 | 4510001720 | ELECTROLITIC | 16 SS 330UF (8X12.5) |
| C184 | 4510002730 | ELECTROLITIC | 10 SS 100UF |
| C185 | 4510002760 | ELECTROLITIC | 10 SS 470UF |
| C186 | 4030008780 | S.CERAMIC | C2012 X7R 1C 104K-T-A |
| C187 | 4030008760 | S.CERAMIC | C2012 X7R 1C 104K-T-A |
| C188 | 4030008680 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C189 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C190 | 4030008680 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C191 | 4030008680 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C192 | 4030006870 | S.CERAMIC | C1608 JB 1H 222K-T-A |
| C193 | 4550000280 | S.TANTALUM | TESVB2 1A 475M-8L |
| C194 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C195 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C196 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C197 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C198 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C199 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| W3 | 7120000380 | JUMPER | JPW 01 R-01 |
| W4 | 7120000380 | JUMPER | JPW 01 R-01 |
| W5 | 7120000380 | JUMPER | JPW 01 R-01 |
| W6 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W7 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W8 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W9 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| J1 | 6510013950 | CONNECTOR | SB4P-HVQ-B |
| J2 | 6510013950 | CONNECTOR | SB4P-HVQ-B |
| J3 | 6510013130 | CONNECTOR | 19PS-JE |
| J4 | 6510005020 | CONNECTOR | TXL-P03P-C1 |
| J5 | 6450000140 | CONNECTOR | HSJ0807-01-010 [430MHz(440MHz) SP] |
| J6 | 6450000140 | CONNECTOR | HSJ0807-01-010 [144MHz SP] |
| J7 | 6510003390 | CONNECTOR | B03B-EH-S |
| EP1 | 0910033532 | PCB | B 3287B |

[VCO-A BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| IC1 | 1130004200 | S.IC | TC4S66F (TE85R) |
| IC2 | 1130005700 | S.IC | M56760FP |
| Q1 | 1590000480 | S.TRANSISTOR | RN2402 (TE85R) |
| Q2 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q3 | 1580000360 | S.FET | 2SK209-Y (TE85R) |
| Q4 | 1530002490 | S.TRANSISTOR | 2SC3324-GR (TE85R) |
| Q5 | 1580000640 | S.FET | 2SK1740-TA |
| Q6 | 1530002240 | S.TRANSISTOR | 2SC3775-3-TA |

S.=Surface mount

[VCO-A BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-------------------------|
| D1 | 1720000220 | S.VARICAP | 1SV166-T2B |
| D2 | 1720000220 | S.VARICAP | 1SV166-T2B |
| L1 | 6200001580 | S.COIL | LER 015T 1R8M |
| L2 | 6200001580 | S.COIL | LER 015T 1R8M |
| L3 | 6200001580 | S.COIL | LER 015T 1R8M |
| L4 | 6130002420 | S.COIL | LB-270 |
| L5 | 6200001230 | S.COIL | MLF2012A 1R0M-T |
| R1 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R2 | 7030003530 | S.RESISTOR | ERJ3GEYJ 562 V (5.6 kΩ) |
| R3 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R4 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R5 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R6 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R7 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R8 | 7030003530 | S.RESISTOR | ERJ3GEYJ 562 V (5.6 kΩ) |
| R9 | 7030003450 | S.RESISTOR | ERJ3GEYJ 122 V (1.2 kΩ) |
| R10 | 7030003410 | S.RESISTOR | ERJ3GEYJ 561 V (560 Ω) |
| R11 | 7030000480 | S.RESISTOR | MCR10EZHJ 4.7 kΩ (472) |
| R12 | 7030003530 | S.RESISTOR | ERJ3GEYJ 562 V (5.6 kΩ) |
| R13 | 7030003360 | S.RESISTOR | ERJ3GEYJ 221 V (220 Ω) |
| R14 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R15 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| R16 | 7030003870 | S.RESISTOR | ERJ3GEYJ 823 V (82 kΩ) |
| R17 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R18 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 Ω) |
| R19 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R20 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| R21 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R22 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R23 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 Ω) |
| R24 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| R25 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 Ω) |
| R26 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| C1 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C2 | 4030008880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C3 | 4030004750 | S.CERAMIC | C2012 JB 1H 103K-T-A |
| C4 | 4030008880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C5 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C6 | 4550000940 | S.TANTALUM | TESVB2 1D 225M-8L |
| C7 | 4550000940 | S.TANTALUM | TESVB2 1D 225M-8L |
| C8 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C9 | 4550000550 | S.TANTALUM | TESVA 1V 224M1-8L |
| C10 | 4030008830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C11 | 4030008890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C12 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C13 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C14 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C15 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C16 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C17 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C18 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C19 | 4030006920 | S.CERAMIC | C1608 CH 1H 010C-T-A |
| C20 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C21 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C22 | 4030007010 | S.CERAMIC | C1608 CH 1H 100D-T-A |
| C23 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C24 | 4030007010 | S.CERAMIC | C1608 CH 1H 100D-T-A |
| C25 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| J1 | 6910006500 | CONNECTOR | IMSA-9210B-1-07Z204-T |
| J2 | 6910006490 | CONNECTOR | IMSA-9210B-1-06Z204-T |
| EP1 | 0910032833 | PCB | B 3289C |

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|-------------|---------------|----------------------|
| IC1 | 1130004200 | S.IC | TC4S86F (TE85R) |
| IC2 | 1150000750 | IC | SC1054 |
| IC3 | 1110003340 | S.IC | μPC358GR-T1 |
| IC4 | 1110002200 | S.IC | MC3372MR |
| IC5 | 1130005810 | S.IC | BU4094BF-T1 |
| IC6 | 1110001971 | S.IC | μPC1676G-T1 |
| IC7 | 1110002020 | IC | TA7805S |
| IC8 | 1110001700 | S.IC | TL499ACPS |
| IC9 | 1110000490 | IC | AN8541 |
| IC10 | 1180000420 | S.IC | TA78L05F (TE12R) |
| Q1 | 1510000580 | S.TRANSISTOR | 2SA1382-GR (TE85R) |
| Q2 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q4 | 1530002360 | S.TRANSISTOR | 2SC2714-Y (TE85R) |
| Q5 | 1530002050 | S.TRANSISTOR | 2SC3661-TA |
| Q8 | 1530002240 | S.TRANSISTOR | 2SC3775-3-TA |
| Q7 | 1530002240 | S.TRANSISTOR | 2SC3775-3-TA |
| Q8 | 1590000390 | TRANSISTOR | MRF-559 |
| Q9 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q10 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q11 | 1520000380 | TRANSISTOR | 2SB1143 S |
| Q12 | 1530000180 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q13 | 15300002020 | S.TRANSISTOR | 2SC3770-3-TA |
| Q14 | 1530000180 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q15 | 1590000420 | S.TRANSISTOR | RN1404 (TE85R) |
| Q16 | 1580000550 | S.FET | 3SK241-(TX) |
| Q17 | 1530002240 | S.TRANSISTOR | 2SC3775-3-TA |
| Q18 | 1580000360 | S.FET | 3SK177-T2B U73 |
| Q20 | 1590000460 | S.TRANSISTOR | RN1402 (TE85R) |
| Q21 | 1590000460 | S.TRANSISTOR | RN1402 (TE85R) |
| Q22 | 1590000460 | S.TRANSISTOR | RN1402 (TE85R) |
| Q23 | 1590000980 | S.TRANSISTOR | DTB123EK T147 |
| Q24 | 1590000980 | S.TRANSISTOR | DTB123EK T147 |
| Q25 | 1590000980 | S.TRANSISTOR | DTB123EK T147 |
| Q26 | 1520000230 | TRANSISTOR | 2SB909M Q |
| Q27 | 1530000160 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q28 | 1530001940 | S.TRANSISTOR | 2SC2712-BL (TE85R) |
| Q29 | 1540000150 | TRANSISTOR | 2SD1225M R |
| Q30 | 1590001620 | S.TRANSISTOR | UN521F(TX) |
| Q31 | 1520000270 | S.TRANSISTOR | 2SB1182 TL Q |
| D1 | 1730001120 | S.ZENER | RD24M-T2B2 |
| D2 | 1750000060 | S.DIODE | 1SS196 (TE85R) |
| D4 | 1750000080 | S.DIODE | 1SS153-T2 |
| D5 | 1790000450 | S.DIODE | MA862(TX) |
| D7 | 1790000490 | S.DIODE | HSM88AS-TR |
| D8 | 1790000490 | S.DIODE | HSM88AS-TR |
| D9 | 1710000310 | DIODE | MI407 |
| D10 | 1730000490 | S.ZENER | RD6.8M-T2B2 |
| D11 | 1790000490 | S.DIODE | HSM88AS-TR |
| D12 | 1750000070 | S.DIODE | 1SS226 (TE85R) |
| D13 | 1790000450 | S.DIODE | MA862(TX) |
| D14 | 1790000450 | S.DIODE | MA862(TX) |
| D15 | 1750000070 | S.DIODE | 1SS226 (TE85R) |
| D16 | 1710000290 | DIODE | MI308 |
| D17 | 1710000290 | DIODE | MI308 |
| D18 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D20 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D21 | 1750000020 | S.DIODE | 1SS184 (TE85R) |
| D22 | 1750000060 | S.DIODE | 1SS196 (TE85R) |
| D23 | 1730000640 | S.ZENER | RD4.3M-T2B1 |
| D24 | 1750000060 | S.DIODE | 1SS196 (TE85R) |
| D25 | 1750000060 | S.DIODE | 1SS196 (TE85R) |
| D27 | 1790000700 | DIODE | DSA3A1 |
| D28 | 1750000060 | S.DIODE | 1SS196 (TE85R) |
| D29 | 1750000390 | S.DIODE | 1SS353 TE-17 |
| D30 | 1730002320 | S.ZENER | MA8051-M(TX) |
| FI1 | 2020000550 | CERAMIC | CFUM455E |
| FI2 | 2010001610 | MONOLITHIC | FL-202 (30.850MHz) |
| X1 | 6050008600 | XTAL | CR-433 (12.8000MHz) |
| X2 | 6070000080 | DISCRIMINATOR | CDBM455C16 |

S.=Surface mount

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-------------------------|
| X3 | 6050008950 | XTAL | CR-478 (30.395MHz) |
| L1 | 6200000110 | S.COIL | LQN 2A 33NM |
| L2 | 6200000090 | S.COIL | LQN 2A 18NM |
| L3 | 6200000110 | S.COIL | LQN 2A 33NM |
| L4 | 6200000720 | S.COIL | LQN 2A 10NM |
| L5 | 6200000110 | S.COIL | LQN 2A 33NM |
| L6 | 6200000090 | S.COIL | LQN 2A 18NM |
| L7 | 6110001520 | COIL | LA-232 |
| L8 | 6170000180 | COIL | LW-19 |
| L9 | 6110002110 | COIL | LA-382 |
| L10 | 6110001520 | COIL | LA-232 |
| L11 | 6110001590 | COIL | LA-242 |
| L12 | 6110001520 | COIL | LA-232 |
| L13 | 6180001210 | COIL | LAL 03NA 8R2K |
| L14 | 6150003220 | COIL | LS-320 |
| L15 | 6150002000 | COIL | LS-264 |
| L16 | 6200000090 | S.COIL | LQN 2A 18NM |
| L17 | 6200000100 | S.COIL | LQN 2A 22NM |
| L18 | 6150003240 | COIL | LS-338 (HR5W) |
| L19 | 6150003230 | COIL | LS-337 (HR5W) |
| L20 | 6200000720 | S.COIL | LQN 2A 10NM |
| L21 | 6200000720 | S.COIL | LQN 2A 10NM |
| L22 | 6110002110 | COIL | LA-382 |
| L23 | 6110001520 | COIL | LA-232 |
| L24 | 6200000090 | S.COIL | LQN 2A 18NM |
| L25 | 6200000090 | S.COIL | LQN 2A 18NM |
| L26 | 6180002620 | COIL | RCR664D-101K |
| L27 | 6180001120 | COIL | FL 5H 101K |
| R1 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R2 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R3 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R4 | 7030003540 | S.RESISTOR | ERJ3GEYJ 682 V (6.8 kΩ) |
| R5 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R6 | 4610001110 | TRIMMER | EVM-LGGA00 B15 (104) |
| R10 | 7030003590 | S.RESISTOR | ERJ3GEYJ 183 V (18 kΩ) |
| R11 | 7030003740 | S.RESISTOR | ERJ3GEYJ 334 V (330 kΩ) |
| R12 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R13 | 7030003200 | S.RESISTOR | ERJ3GEYJ 100 V (10 kΩ) |
| R14 | 7030003380 | S.RESISTOR | ERJ3GEYJ 331 V (330 kΩ) |
| R15 | 7030003380 | S.RESISTOR | ERJ3GEYJ 331 V (330 kΩ) |
| R16 | 7030003460 | S.RESISTOR | ERJ3GEYJ 152 V (1.5 kΩ) |
| R17 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R18 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R19 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R20 | 7030003360 | S.RESISTOR | ERJ3GEYJ 221 V (220 kΩ) |
| R21 | 7030000260 | S.RESISTOR | MCR10EZHJ 100 Ω (101) |
| R22 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R23 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R24 | 7030003370 | S.RESISTOR | ERJ3GEYJ 271 V (270 Ω) |
| R25 | 7030003230 | S.RESISTOR | ERJ3GEYJ 180 V (18 Ω) |
| R26 | 7030003370 | S.RESISTOR | ERJ3GEYJ 271 V (270 Ω) |
| R27 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R28 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R29 | 7030003450 | S.RESISTOR | ERJ3GEYJ 122 V (1.2 kΩ) |
| R30 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R31 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R32 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R33 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R34 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R35 | 7030003540 | S.RESISTOR | ERJ3GEYJ 682 V (6.8 kΩ) |
| R36 | 4610001100 | TRIMMER | EVM-LGGA00 B34 (303) |
| R37 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R38 | 7030003540 | S.RESISTOR | ERJ3GEYJ 682 V (6.8 kΩ) |
| R39 | 7030001050 | S.RESISTOR | MCR50JZHJ 22 Ω (220) |
| R41 | 7010004130 | RESISTOR | R20J 330 Ω |
| R42 | 7030000480 | S.RESISTOR | MCR10EZHJ 6.8 kΩ (682) |
| R43 | 7030000250 | S.RESISTOR | MCR10EZHJ 82 Ω (820) |
| R44 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R45 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R46 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R47 | 7010004720 | RESISTOR | R50XJ 100 Ω |
| R48 | 7030000460 | S.RESISTOR | MCR10EZHJ 4.7 kΩ (472) |

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-------------------------|
| R49 | 7030000270 | S.RESISTOR | MCR10EZHJ 120 Ω (121) |
| R50 | 7030003790 | S.RESISTOR | ERJ3GEYJ 824 V (820 kΩ) |
| R51 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R52 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R53 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R54 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R55 | 7030003570 | S.RESISTOR | ERJ3GEYJ 123 V (12 kΩ) |
| R56 | 7030003720 | S.RESISTOR | ERJ3GEYJ 224 V (220 kΩ) |
| R57 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R58 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R59 | 703000250 | S.RESISTOR | MCR10EZHJ 82 Ω (820) |
| R60 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R61 | 7030003470 | S.RESISTOR | ERJ3GEYJ 182 V (1.8 kΩ) |
| R62 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R63 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R64 | 7030003450 | S.RESISTOR | ERJ3GEYJ 122 V (1.2 kΩ) |
| R65 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R66 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R67 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R68 | 7030003340 | S.RESISTOR | ERJ3GEYJ 151 V (150 kΩ) |
| R69 | 7030003780 | S.RESISTOR | ERJ3GEYJ 474 V (470 kΩ) |
| R70 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R71 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R72 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R73 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R74 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R75 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R76 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R77 | 4610001040 | TRIMMER | EVM-LGGA00 B54 (503) |
| R78 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R79 | 7030003200 | S.RESISTOR | ERJ3GEYJ 100 V (10 kΩ) |
| R80 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R81 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R82 | 7030003350 | S.RESISTOR | ERJ3GEYJ 181 V (180 kΩ) |
| R83 | 7030003350 | S.RESISTOR | ERJ3GEYJ 181 V (180 kΩ) |
| R84 | 7030003260 | S.RESISTOR | ERJ3GEYJ 330 V (33 kΩ) |
| R85 | 7030003300 | S.RESISTOR | ERJ3GEYJ 680 V (68 kΩ) |
| R86 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R87 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R88 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R89 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R90 | 7030003380 | S.RESISTOR | ERJ3GEYJ 331 V (330 kΩ) |
| R91 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R92 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R93 | 7030003580 | S.RESISTOR | ERJ3GEYJ 153 V (15 kΩ) |
| R94 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 kΩ) |
| R95 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R96 | 7030003340 | S.RESISTOR | ERJ3GEYJ 151 V (150 kΩ) |
| R97 | 7030003250 | S.RESISTOR | ERJ3GEYJ 270 V (27 kΩ) |
| R98 | 7030003680 | S.RESISTOR | ERJ3GEYJ 104 V (100 kΩ) |
| R99 | 7030003600 | S.RESISTOR | ERJ3GEYJ 223 V (22 kΩ) |
| R100 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R101 | 7030003500 | S.RESISTOR | ERJ3GEYJ 332 V (3.3 kΩ) |
| R104 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 kΩ) |
| R106 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R107 | 7030003290 | S.RESISTOR | ERJ3GEYJ 560 V (58 kΩ) |
| R108 | 703000240 | S.RESISTOR | MCR10EZHJ 68 Ω (680) |
| R109 | 7030003260 | S.RESISTOR | ERJ3GEYJ 330 V (33 kΩ) |
| R110 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R111 | 7030003080 | S.RESISTOR | MCR10EZHJ 1 kΩ (102) |
| R112 | 7030003440 | S.RESISTOR | ERJ3GEYJ 102 V (1 kΩ) |
| R113 | 7030003490 | S.RESISTOR | ERJ3GEYJ 272 V (2.7 kΩ) |
| R114 | 7030003690 | S.RESISTOR | ERJ3GEYJ 124 V (120 kΩ) |
| R115 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R116 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 kΩ) |
| R117 | 7010004830 | RESISTOR | R50XJ 4.7 Ω |
| R118 | 7030003360 | S.RESISTOR | ERJ3GEYJ 221 V (220 kΩ) |
| R119 | 7010004780 | RESISTOR | R50XJ 470 Ω |
| R120 | 7030003580 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R121 | 7520000030 | POSISTOR | PTH59F04 BG 222TS |
| R122 | 7030003420 | S.RESISTOR | ERJ3GEYJ 681 V (680 kΩ) |
| C1 | 4030008830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C2 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C3 | 4510002950 | ELECTROLITIC | 50 SS 2R2UF |

S.=Surface mount

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| C4 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C5 | 4550002890 | S.TANTALUM | TESVA 1A 225M1-8L |
| C8 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C10 | 4030006980 | S.CERAMIC | C1608 CH 1H 070D-T-A |
| C12 | 4030008940 | S.CERAMIC | C1608 CH 1H 030C-T-A |
| C13 | 4030008430 | S.CERAMIC | C1608 JF 1H 223Z-T-A |
| C14 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C15 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C16 | 4030008430 | S.CERAMIC | C1608 JF 1H 223Z-T-A |
| C17 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C18 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C19 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C20 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C21 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C22 | 4510002640 | ELECTROLITIC | 25 SS 47UF |
| C23 | 4510002730 | ELECTROLITIC | 10 SS 100UF |
| C24 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C25 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C26 | 4030006890 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C27 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C28 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C29 | 4030008570 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C30 | 4030006580 | S.CERAMIC | C1608 SL 1H 070D-T-A |
| C31 | 4030006580 | S.CERAMIC | C1608 SL 1H 070D-T-A |
| C32 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C33 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C34 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C35 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C36 | 4550000950 | S.TANTALUM | TESVC 1D 475M-12L |
| C37 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C38 | 4030006660 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C39 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C40 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C41 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C42 | 4030008860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C43 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C44 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C45 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C46 | 4030006570 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C47 | 4030006570 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C48 | 4030006570 | S.CERAMIC | C1608 SL 1H 080D-T-A |
| C49 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C50 | 4550000260 | TANTALUM | DN 1V 100M |
| C51 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C52 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C53 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C54 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C55 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C56 | 4550002120 | TANTALUM | DN 1C 220M |
| C57 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C58 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C59 | 4010003820 | CERAMIC | DD06 SL 050C 500V |
| C60 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C61 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C62 | 4010003820 | CERAMIC | DD06 SL 050C 500V |
| C63 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C64 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C65 | 4510002980 | ELECTROLITIC | 50 SS 10UF |
| C66 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C67 | 4010004110 | CERAMIC | DD05 B 471K 500V |
| C68 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C69 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C70 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C71 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C72 | 4010004110 | CERAMIC | DD05 B 471K 500V |
| C73 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C74 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C75 | 4010003820 | CERAMIC | DD06 SL 050C 500V |
| C76 | 4010003850 | CERAMIC | DD06 SL 080D 500V |
| C77 | 4010003830 | CERAMIC | DD06 SL 060D 500V |
| C78 | 4010003870 | CERAMIC | DD06 SL 120K 500V |
| C79 | 4010003820 | CERAMIC | DD06 SL 050C 500V |
| C80 | 4010003860 | CERAMIC | DD06 SL 100D 500V |
| C81 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C82 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C83 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|----------------------|
| C84 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C85 | 4030006840 | S.CERAMIC | C1608 SL 1H 180J-T-A |
| C86 | 4030006720 | S.CERAMIC | C1608 SL 1H 560J-T-A |
| C87 | 4030006890 | S.CERAMIC | C1608 SL 1H 330J-T-A |
| C88 | 4030006880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C89 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C90 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C91 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C92 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C93 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C94 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C95 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C96 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C97 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C98 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C99 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C100 | 4030006890 | S.CERAMIC | C1608 SL 1H 330J-T-A |
| C101 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C102 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C103 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C104 | 4510002930 | ELECTROLITIC | 50 SS R47UF |
| C105 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C106 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C107 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C108 | 4510002980 | ELECTROLITIC | 50 SS 10UF |
| C109 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C110 | 4030006710 | S.CERAMIC | C1608 SL 1H 470J-T-A |
| C111 | 4030006810 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C112 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C113 | 4030006860 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| C114 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C115 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C116 | 4020000660 | CYLINDER | UP125 SL 120J |
| C117 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C118 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C119 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C120 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C121 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C122 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C123 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C124 | 4610001340 | TRIMMER | ECR-LA010 A12 |
| C125 | 4030006180 | S.CERAMIC | C2012 UJ 1H 040C-T-A |
| C126 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C127 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C128 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C129 | 4610001340 | TRIMMER | ECR-LA010 A12 |
| C130 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C131 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C132 | 4030006690 | S.CERAMIC | C1608 SL 1H 330J-T-A |
| C133 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C134 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C135 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C137 | 4010005300 | CERAMIC | DD05 CH 080D 500V |
| C138 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C139 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C140 | 4510002940 | ELECTROLITIC | 50 SS 1UF |
| C141 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C142 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C143 | 4030006580 | S.CERAMIC | C1608 SL 1H 050C-T-A |
| C144 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C145 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C146 | 4030006880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C147 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C148 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C149 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C151 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C152 | 4030006880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C153 | 4030006880 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C154 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C155 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C156 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C157 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C158 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C159 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C160 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C161 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |

S.=Surface mount

[MAIN-B UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-----------------------|
| C162 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C163 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C164 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C165 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C166 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C167 | 4030006750 | S.CERAMIC | C1608 SL 1H 101J-T-A |
| C168 | 4510002640 | ELECTROLITIC | 25 SS 47UF |
| C169 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C170 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C171 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C172 | 4510003150 | ELECTROLITIC | 35 SS 33UF |
| C173 | 4510003150 | ELECTROLITIC | 35 SS 33UF |
| C174 | 4510003150 | ELECTROLITIC | 35 SS 33UF |
| C175 | 4550000320 | TANTALUM | DN 1V 0R1M |
| C176 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C177 | 4510002870 | ELECTROLITIC | 25 SS 100UF |
| C178 | 4510002870 | ELECTROLITIC | 25 SS 100UF |
| C179 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C180 | 4510002840 | ELECTROLITIC | 25 SS 47UF |
| C181 | 4510002840 | ELECTROLITIC | 25 SS 47UF |
| C182 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C183 | 4510002730 | ELECTROLITIC | 10 SS 100UF |
| C184 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C185 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C186 | 4510002840 | ELECTROLITIC | 25 SS 47UF |
| C187 | 4510002380 | ELECTROLITIC | 16 SS 470UF (10X12.5) |
| C188 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C189 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C190 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C191 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C192 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C193 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C194 | 4030008630 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C195 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C196 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C197 | 4510002980 | ELECTROLITIC | 50 SS 10UF |
| C198 | 4030006870 | S.CERAMIC | C1608 JB 1H 222K-T-A |
| C199 | 4030006520 | S.CERAMIC | C1608 SL 1H 010C-T-A |
| C200 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C201 | 4550006480 | S.TANTALUM | TEMSVA 1C 475M-8L |
| W1 | 8900002450 | CABLE | OPC-223 [ANT] |
| W2 | 8900004540 | CABLE | OPC-453 [DC13.8V] |
| W3 | 7120000380 | JUMPER | JPW 01 R-01 |
| W4 | 7120000380 | JUMPER | JPW 01 R-01 |
| W5 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W6 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W7 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W8 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| J1 | 6510017150 | CONNECTOR | TMP-S01X-C1 |
| J2 | 6510013930 | CONNECTOR | 15PS-JE |
| J3 | 6910003140 | CONNECTOR | IMSA-9202B-1-02T |
| EP1 | 0910041322 | PCB | B 4105B |
| EP11 | 6910000630 | BEAD | FSOH070RN |

[VCO-B BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-------------------------|
| IC1 | 1130004200 | S.IC | TC4S68F (TE85R) |
| IC2 | 1130005700 | S.IC | M56760FP |
| Q1 | 1580000650 | S.FET | 2SK1577-2-T7 |
| Q2 | 1530002240 | S.TRANSISTOR | 2SC3775-3-TA |
| Q3 | 1580000480 | S.TRANSISTOR | RN2402 (TE85R) |
| Q4 | 1530000180 | S.TRANSISTOR | 2SC2712-Y (TE85RTEM) |
| Q5 | 1580000360 | S.FET | 2SK209-Y (TE85R) |
| Q6 | 1530002490 | S.TRANSISTOR | 2SC3324-GR (TE85R) |
| Q7 | 1530002030 | S.TRANSISTOR | 2SC3772-3-TA |
| D1 | 1720000220 | S.VARICAP | 1SV168-T2B |
| D2 | 1720000220 | S.VARICAP | 1SV168-T2B |
| L1 | 6200001580 | S.COIL | LER 015T R68M |
| L2 | 6200001580 | S.COIL | LER 015T R68M |
| L3 | 6130002450 | S.COIL | LB-273 |
| L4 | 6200001570 | S.COIL | LER 015T 1R0M |
| L5 | 6200001570 | S.COIL | LER 015T 1R0M |
| L6 | 6200001230 | S.COIL | MLF2012A 1R0M-T |
| R1 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R2 | 7030003280 | S.RESISTOR | ERJ3GEYJ 470 V (47 Ω) |
| R3 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R4 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R5 | 7030003310 | S.RESISTOR | ERJ3GEYJ 820 V (82 Ω) |
| R6 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| R7 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R8 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R9 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| R10 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R11 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R12 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R13 | 7030003560 | S.RESISTOR | ERJ3GEYJ 103 V (10 kΩ) |
| R14 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R15 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R16 | 7030003320 | S.RESISTOR | ERJ3GEYJ 101 V (100 Ω) |
| R17 | 7030003540 | S.RESISTOR | ERJ3GEYJ 682 V (6.8 kΩ) |
| R18 | 7030003450 | S.RESISTOR | ERJ3GEYJ 122 V (1.2 kΩ) |
| R19 | 7030003410 | S.RESISTOR | ERJ3GEYJ 561 V (560 Ω) |
| R20 | 7030000460 | S.RESISTOR | MCR10EZHZ 4.7 kΩ (472) |
| R21 | 7030003360 | S.RESISTOR | ERJ3GEYJ 221 V (220 Ω) |
| R22 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R23 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 Ω) |
| R24 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 Ω) |
| R25 | 7030003220 | S.RESISTOR | ERJ3GEYJ 150 V (15 Ω) |
| R26 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R27 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R28 | 7030003400 | S.RESISTOR | ERJ3GEYJ 471 V (470 Ω) |
| C1 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C2 | 4030007110 | S.CERAMIC | C1608 CH 1H 680J-T-A |
| C3 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C4 | 4030006550 | S.CERAMIC | C1608 SL 1H 040C-T-A |
| C5 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C6 | 4030006910 | S.CERAMIC | C1608 CH 1H 0R5C-T-A |
| C7 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C8 | 4030006610 | S.CERAMIC | C1608 SL 1H 100D-T-A |
| C9 | 4030006890 | S.CERAMIC | C1608 JF 1H 103Z-T-A |
| C10 | 4030008850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C11 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C12 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| C13 | 4030005110 | S.CERAMIC | C2012 JB 1E 473K-T-A |
| C14 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C15 | 4550000940 | S.TANTALUM | TESVB2 1D 225M-8L |
| C16 | 4550000940 | S.TANTALUM | TESVB2 1D 225M-8L |
| C17 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C18 | 4550000550 | S.TANTALUM | TESVA 1V 224M1-8L |
| C19 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C20 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C21 | 4030006830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |

S.=Surface mount

[VCO-B BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|-------------|-----------------------|
| C22 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C23 | 4030007010 | S.CERAMIC | C1608 CH 1H 100D-T-A |
| C24 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C25 | 4030006880 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C26 | 4030006880 | S.CERAMIC | C1608 SL 1H 220J-T-A |
| J1 | 6910006500 | CONNECTOR | IMSA-9210B-1-07Z204-T |
| J2 | 6910006490 | CONNECTOR | IMSA-9210B-1-08Z204-T |
| EP1 | 0910032970 | PCB | B 3290 |

[TONE UNIT] (USA, KOR only)

| REF. NO. | ORDER NO. | DESCRIPTION | |
|----------|------------|--------------|-------------------------|
| IC1 | 1130007220 | S.IC | AK2341-T |
| IC3 | 1130003610 | S.IC | TC4SU69F (TE85R) |
| Q1 | 1530002840 | S.TRANSISTOR | 2SC4116-Y (TE85R) |
| X1 | 6050008720 | XTAL | CR-446 (3.6864MHz) |
| R1 | 7030003800 | S.RESISTQR | ERJ3GEYJ 105 V (1 MΩ) |
| R2 | 7030003480 | S.RESISTOR | ERJ3GEYJ 222 V (2.2 kΩ) |
| R6 | 7030003580 | S.RESISTOR | ERJ3GEYJ 153 V (15 kΩ) |
| R13 | 7030003740 | S.RESISTOR | ERJ3GEYJ 334 V (330 kΩ) |
| R27 | 7030003580 | S.RESISTOR | ERJ3GEYJ 153 V (15 kΩ) |
| R28 | 7310003600 | S.TRIMMER | EVM-1XSX50 B54 (503) |
| R29 | 7030003520 | S.RESISTOR | ERJ3GEYJ 472 V (4.7 kΩ) |
| R30 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| R31 | 7030003800 | S.RESISTOR | ERJ3GEYJ 105 V (1 MΩ) |
| R32 | 7030003640 | S.RESISTOR | ERJ3GEYJ 473 V (47 kΩ) |
| C1 | 4030006540 | S.CERAMIC | C1608 SL 1H 030C-T-A |
| C7 | 4550003220 | S.TANTALUM | TEMNSVA 1E 105M-8L |
| C8 | 4550003220 | S.TANTALUM | TEMNSVA 1E 105M-8L |
| C17 | 4030008830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C18 | 4030008830 | S.CERAMIC | C1608 JF 1C 104Z-T-A |
| C19 | 4550003030 | S.TANTALUM | TEMNSVA OJ 475M-8L |
| C20 | 4550003030 | S.TANTALUM | TEMNSVA OJ 475M-8L |
| C21 | 4030006870 | S.CERAMIC | C1608 JB 1H 222K-T-A |
| C22 | 4030007040 | S.CERAMIC | C1608 CH 1H 180J-T-A |
| C23 | 4030007040 | S.CERAMIC | C1608 CH 1H 180J-T-A |
| C24 | 4030008680 | S.CERAMIC | C2012 JF 1C 105Z-T-A |
| J1 | 6510016460 | S.CONNECTOR | 53309-1290 |
| EP1 | 0910041332 | PCB | B 4098B |

S.=Surface mount

SECTION 6 MECHANICAL PARTS AND DISASSEMBLY

6-1 CHASSIS PARTS

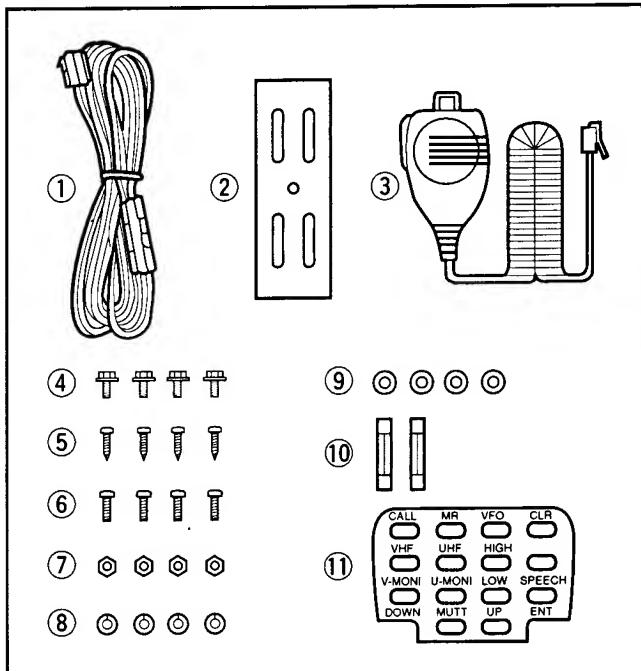
| LABEL NO. | ORDER NO. | DESCRIPTION | QTY. |
|-----------|------------|-----------------------------------|------|
| ① | 8610008960 | Knob (TUNE) N-210 | 2 |
| ② | 8610009040 | Knob (UHF VOL) N-212 (A) (Orange) | 1 |
| ③ | 8610009030 | Knob (SQL) N-211 (A) | 2 |
| ④ | 8610009050 | Knob (VHF VOL) N-212 (B) (Green) | 1 |
| ⑤ | 8210010590 | 1479 Front panel | 1 |
| ⑥ | 8810006460 | Screw FH M2 x 3 | 4 |
| ⑦ | 8930031720 | 1479 sponge | 2 |
| ⑧ | 8930030580 | 1479 LCD rubber w/holder | 1 |
| ⑨ | 5030001090 | LCD FTD-12634AAH | 1 |
| ⑩ | 8930030860 | LCD contact SRCN-1479-W | 2 |
| ⑪ | 8930030590 | 1479 LCD filter | 1 |
| ⑫ | 8930031640 | 1479 Grounding plate | 1 |
| ⑬ | 8010015320 | 1479 Sub chassis | 1 |
| ⑭ | 8810002100 | Screw FH M2.6 x 4 | 8 |
| ⑮ | 8010015310 | 1479 chassis | 1 |
| ⑯ | 8810003160 | Set screw (A) 3 x 6 | 23 |
| ⑰ | 8930025070 | Sponge (CW) | 1 |
| ⑱ | 810005250 | 1479 V-PA Shield case | 1 |
| ⑲ | 8810001910 | Screw PH M3 x 6 BS NI | 10 |
| ⑳ | 8810003660 | Icom screw (A) 5 | 2 |
| ㉑ | 8930020680 | V-module holder | 1 |

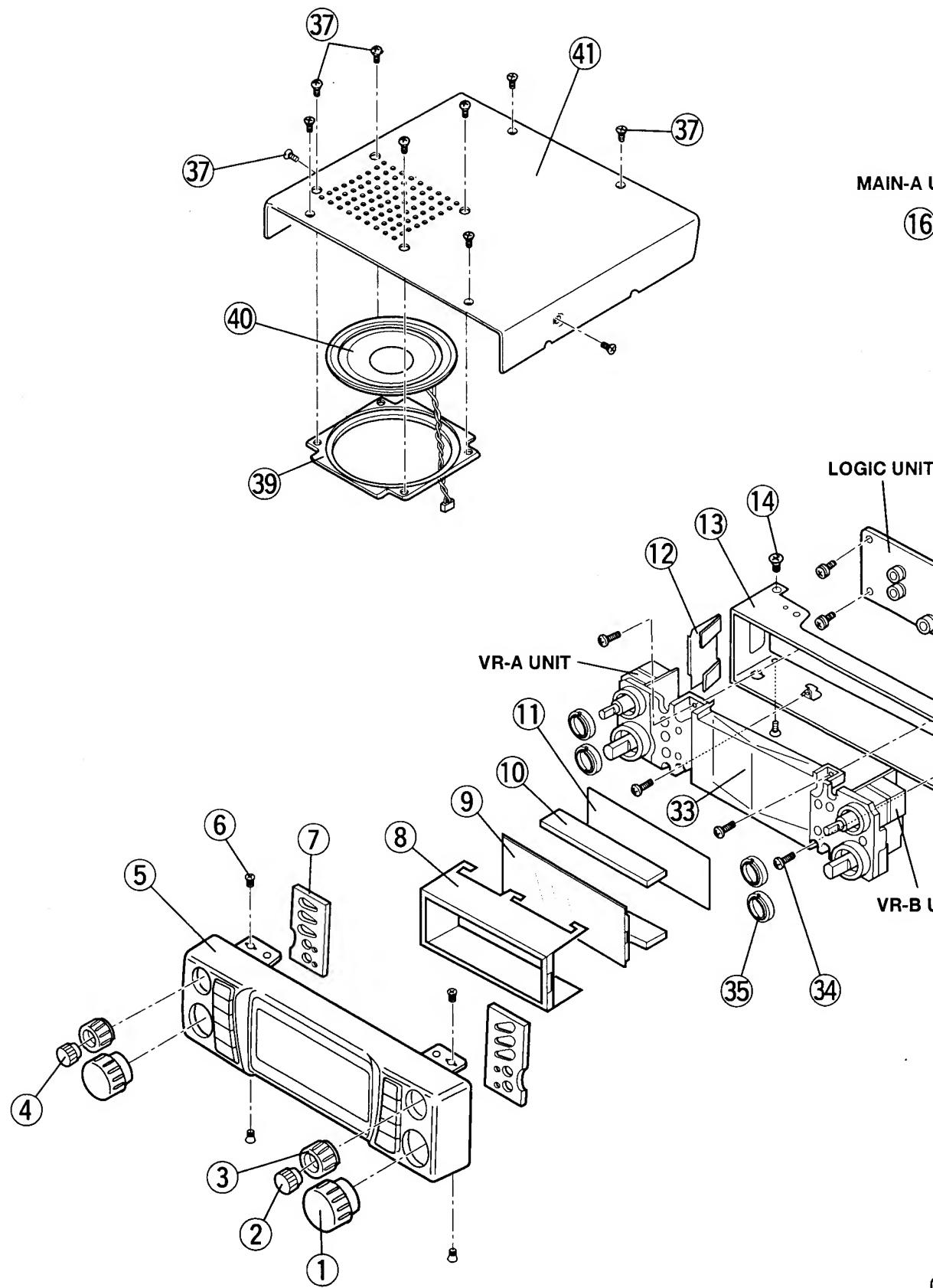
| LABEL NO. | ORDER NO. | DESCRIPTION | QTY. |
|-----------|------------|----------------------------|------|
| ㉒ | 8900004760 | Microphone cable OPC-462 | 1 |
| ㉓ | 8900002450 | ANT cable OPC-223 | 1 |
| ㉔ | 6950000040 | M-type cap (Black) | 1 |
| ㉕ | 8510006440 | ANT CAP | 1 |
| ㉖ | 8930020900 | Jack-plate | 1 |
| ㉗ | 8810008190 | Screw PH M3 x 12 ZK | 4 |
| ㉘ | 8110005190 | 1479 Fan cover | 1 |
| ㉙ | 8900004540 | DC cable OPC-453 | 1 |
| ㉚ | 2710000350 | Fan MF40B-12H | 1 |
| ㉛ | 8930020860 | IC-holder | 1 |
| ㉜ | 8810003960 | Set screw (A) 2.6 x 5 | 4 |
| ㉝ | 8210009930 | 1479 Reflector | 1 |
| ㉞ | 8810000030 | Screw PH M2 x 6 | 4 |
| ㉟ | 8830000790 | VR nut (H) | 4 |
| ㉟ | 8930020670 | U-module holder | 1 |
| ㉟ | 8810006230 | Screw OH M2.6 x 4 ZK | 16 |
| ㉟ | 8110005180 | 1479 Bottom cover | 1 |
| ㉟ | 8930020661 | Speaker plate (SP-PLATE-1) | 1 |
| ㉟ | 2510000470 | Speaker EAS-6P100SA | 1 |
| ㉟ | 8810005170 | 1479 Top cover | 1 |
| ㉟ | 8010012200 | U-PA shield (A) | 1 |

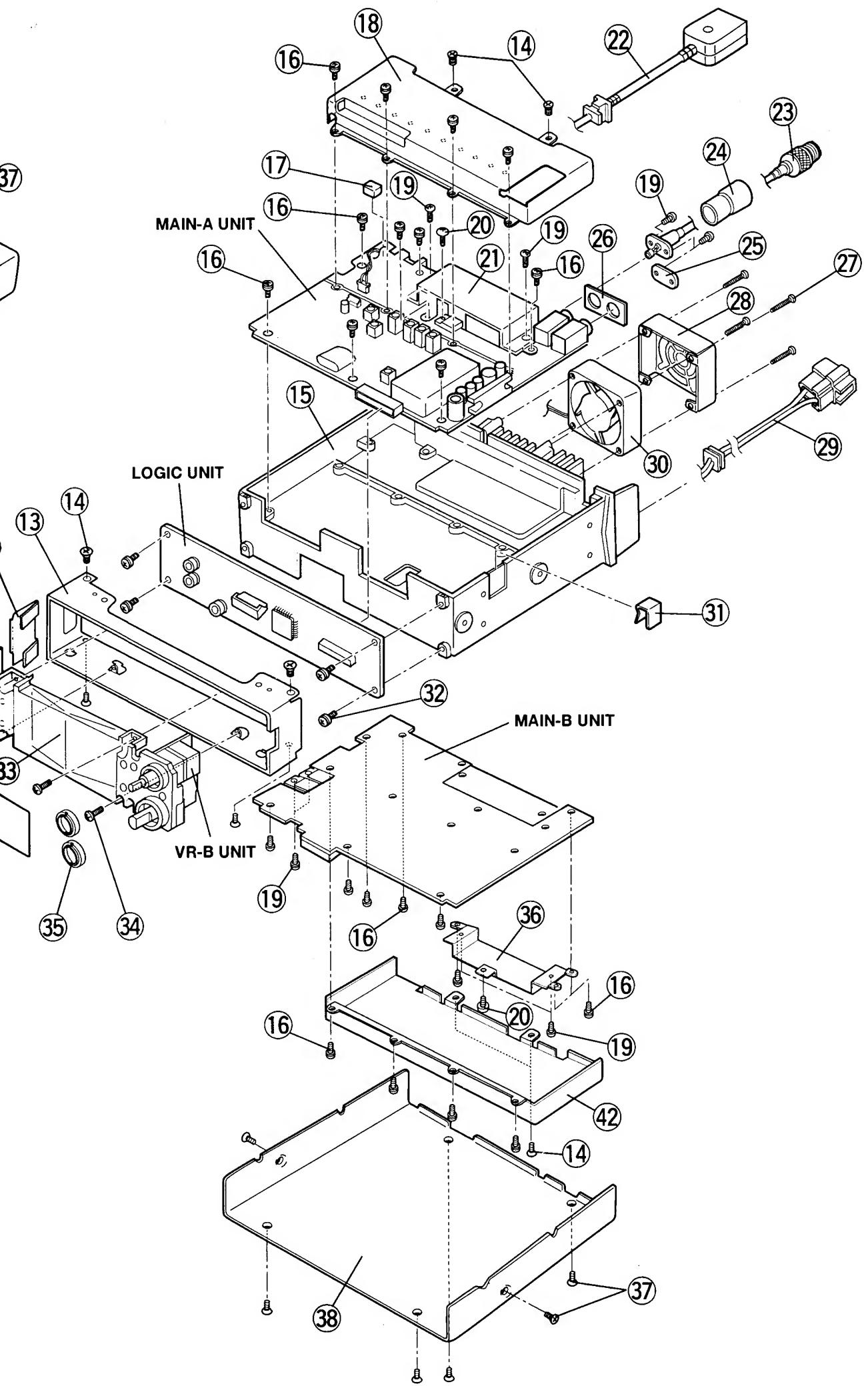
Screw abbreviations: PH: Pan head OH: Oval countersunk head
FH: Flat head

6-2 ACCESSORIES

| LABEL NO. | ORDER NO. | DESCRIPTION | QTY. |
|-----------|------------------|-------------------------------------|------|
| ① | 8930003750 | DC power cable (OPC-345) | 1 |
| ② | Optional product | Mounting bracket (MB-59) | 1 |
| ③ | Optional product | Microphone HM-77 (USA/KOR versions) | 1 |
| ③ | Optional product | Microphone HM-78 (AUS/SEA versions) | 1 |
| ③ | Optional product | Microphone HM-79 (EUR/ITA versions) | 1 |
| ④ | 8820000530 | Mounting bolt M4 x 8 NI | 4 |
| ⑤ | 8810000950 | Screw PH A0 5 x 16 | 4 |
| ⑥ | 8810000470 | Screw PH (+, -) M5 x 12 | 4 |
| ⑦ | 8830000120 | Nut (M5) | 4 |
| ⑧ | 8850000390 | Spring washer M5 | 4 |
| ⑨ | 8850000150 | Flat washer M5 BS NI | 4 |
| ⑩ | 5210000120 | Fuses (15 A) | 2 |
| ⑪ | 8310022240 | Microphone sheet for HM-77 | 1 |







SECTION 7 SEMI-CONDUCTOR INFORMATIONS

7-1 TRANSISTORS

| NAME | SYMBOL | INSIDE VIEW |
|--------------|--------|-------------|
| 2SA1162 Y | SY | |
| 2SA1362 GR | AEG | |
| 2SA1734 | LB | |
| 2SB798 DK | DK | |
| 2SB909M Q | — | |
| 2SB1135 R | — | |
| 2SB1143 S | — | |
| 2SB1182 TL Q | B1882 | |
| 2SC2712-BL | LL | |
| 2SC2712-GR | LG | |
| 2SC2712-Y | LY | |
| 2SC2714-Y | QY | |
| 2SC3324-GR | CBG | |
| 2SC3326-B | CCB | |
| 2SC3661 | FY | |
| 2SC3770 | JY3 | |
| 2SC3772 | LY3 | |
| 2SC3775 | OY3 | |
| 2SC4116-Y | LY | |

| NAME | SYMBOL | INSIDE VIEW |
|-----------|--------|-------------|
| 2SC4315 | MK | |
| 2SD1225 | — | |
| 2SJ106-Y | VY | |
| 2SJ144-Y | VY | |
| 2SK1577-2 | P2 | |
| 2SK1740 | IJ | |
| 2SK209-Y | XY | |
| 3SK177 | U73 | |
| 3SK241 | DU | |
| DTB123 EK | F12 | |
| FMG2 | G2 | |
| MRF-559 | 559 | |
| RN1402 | XB | |
| RN1404 | XD | |

| NAME | SYMBOL | INSIDE VIEW |
|------------|--------|-------------|
| RN2402 | YB | |
| RN2404 | YD | |
| RN2427 | RG | |
| UN521F(TX) | 8O | |

| NAME | SYMBOL | INSIDE VIEW |
|---------------|--------|-------------|
| 1SS226 | C3 | |
| 1SS254 | yellow | |
| 1SS353 | C | |
| 1SV166 | - | |
| HSM88AS | C1 | |
| MA862 | M1I | |
| MA8051-M | 5-1 | |
| MA8091-M (TX) | 9-1 | |
| MI308 | - | |
| MI407 | - | |
| RD4.3M-T281 | 431 | |
| RD6.2MB2 | 622 | |
| RD6.8MB2 | 682 | |
| RD24MB2 | 242 | |

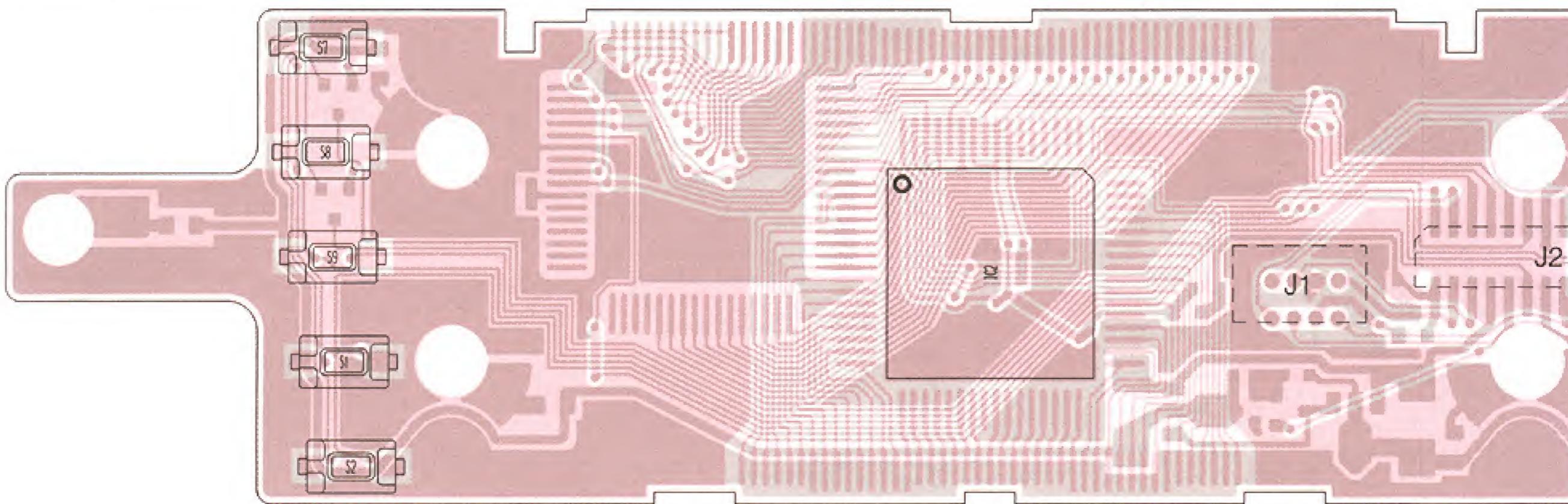
7-2 DIODES

| NAME | SYMBOL | INSIDE VIEW |
|--------|--------|-------------|
| 1SS153 | A9 | |
| 1SS181 | A3 | |
| 1SS184 | B3 | |
| 1SS187 | D3 | |
| 1SS190 | E3 | |
| 1SS196 | G3 | |

SECTION 8 BOARD LAYOUTS

8-1 DISPLAY UNIT AND LOGIC UNIT

- DISPLAY UNIT (TOP VIEW)

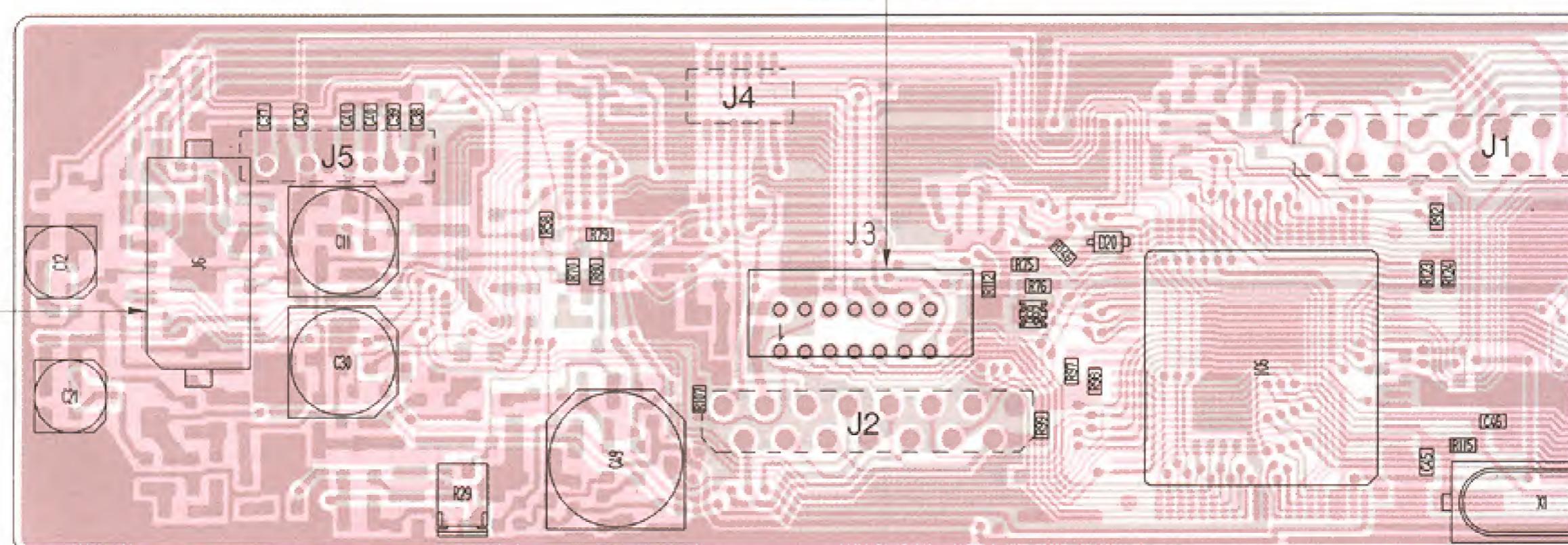


- LOGIC UNIT (TOP VIEW)

DTMF ENCODER/
DECODER UNIT
J1
(OPTION)

| STD | DTMF | GND | OPT D | CK | DATA | STBOD | L5V |
|-----|------|-----|-------|-----|------|-------|-----|
| Q4 | Q3 | Q2 | Q1 | TOE | DET | | |

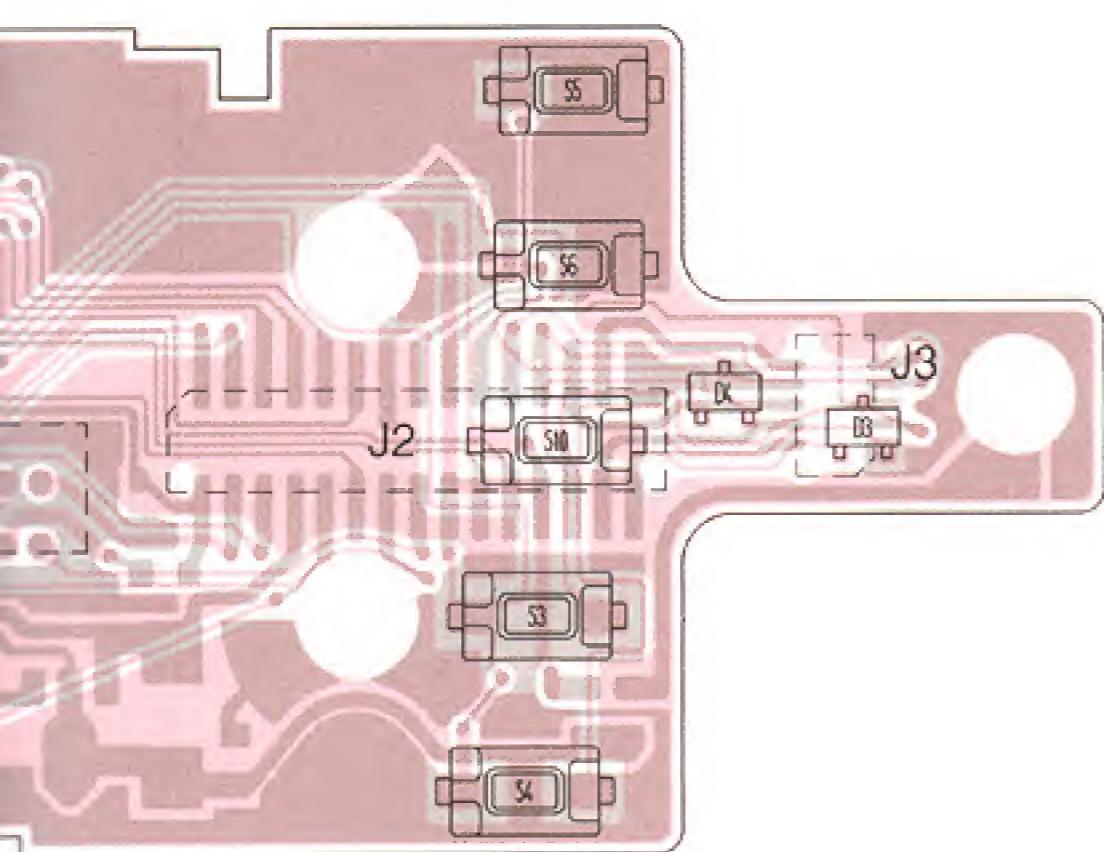
| VR-A UNIT | J1 |
|-----------|-------|
| VSQL | VVOL1 |
| VSQL | VVOL1 |
| AFE | VVOL2 |
| AFE | VVOL2 |
| GND | GND |
| GND | GND |
| UPV | KEYI1 |
| VCK | KEYS0 |
| KEY10 | GND |



DISPLAY
UNIT
J2

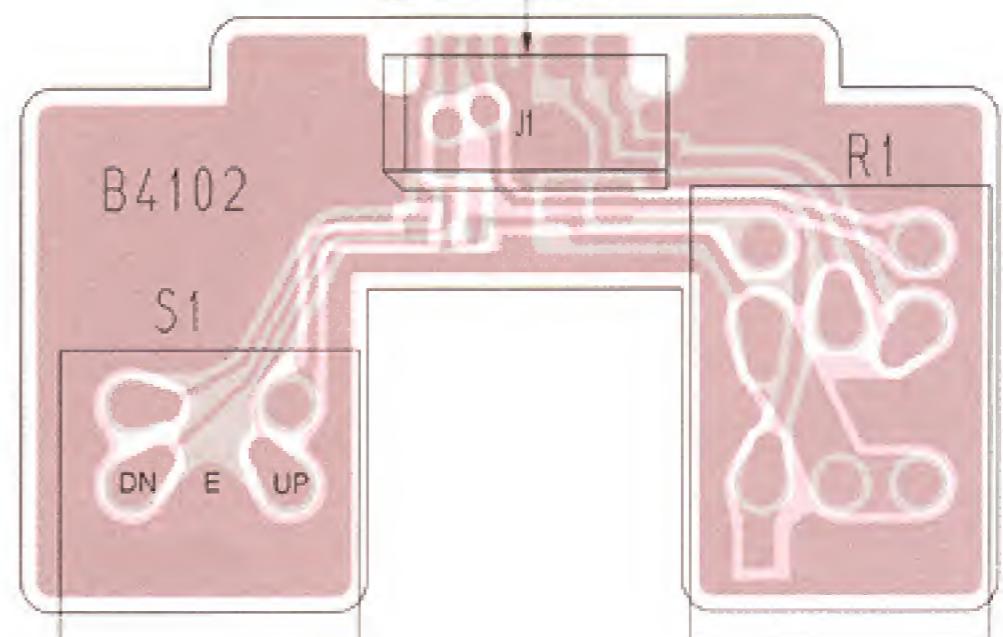
The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

• VR-A UNIT (TOP VIEW)

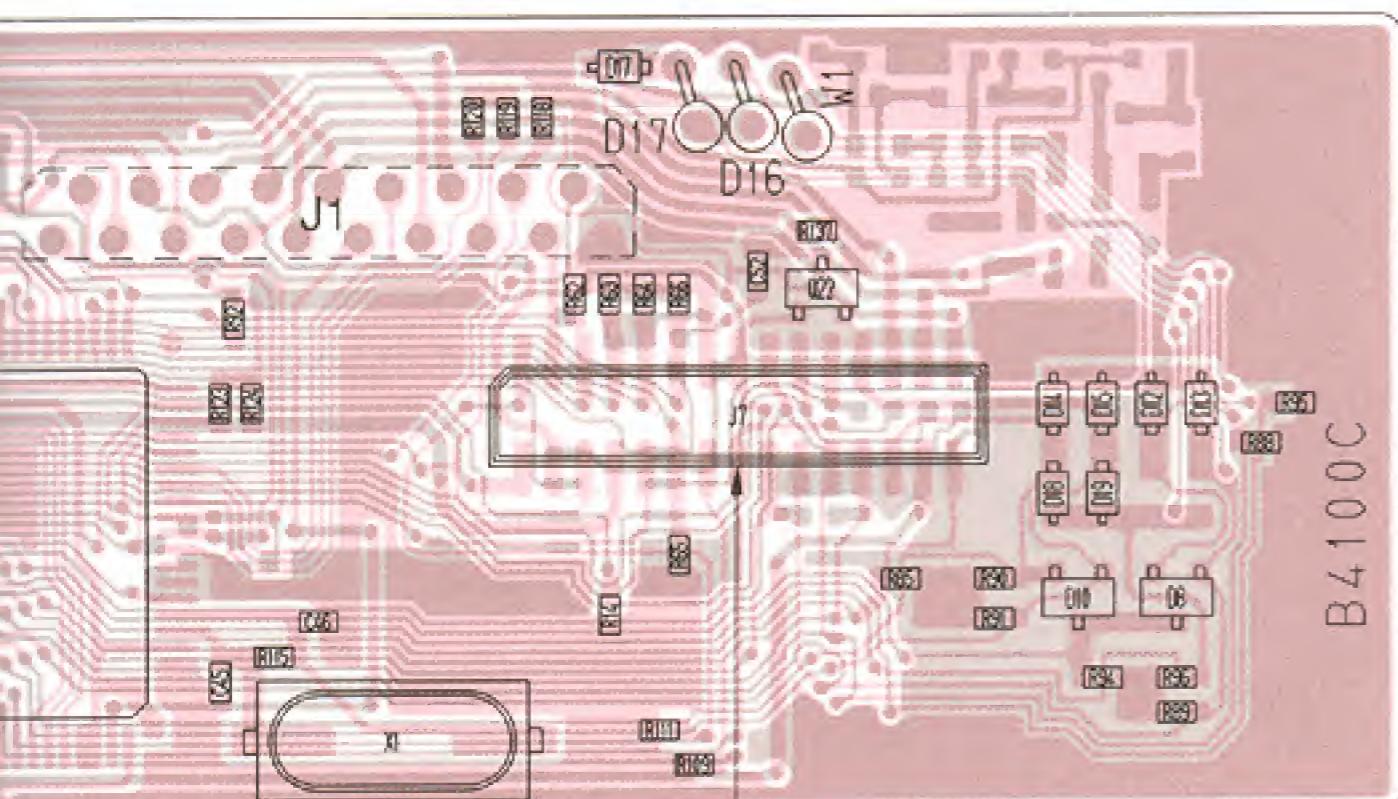


DISPLAY UNIT

| | |
|-------|-------|
| KEY10 | GND |
| VCK | KEYSD |
| UPV | KEY11 |
| GND | GND |
| GND | GND |
| AFE | VVOL2 |
| AFE | VVOL1 |
| VSQL | VVOL1 |
| VSQL | VVOL1 |



• VR-B UNIT (TOP VIEW)

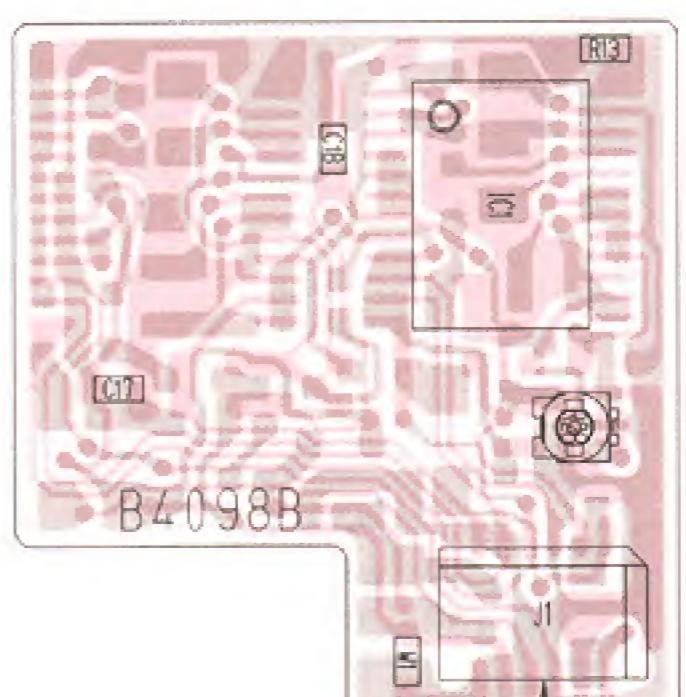


DISPLAY
UNIT
J2

| | |
|-------|---------|
| L5V | STBSP |
| VOICE | DATA |
| CK | LCDDATA |
| 13.8V | LCCCLK |
| DIM | LCE2 |
| LCE1 | /LINH |
| BUSY | GND |
| UNITS | POWER |
| KEYS1 | LOW |
| KEY11 | UCK |
| KEY10 | UPU |
| KES2 | KEY13 |
| KEY12 | UVOL2 |
| USQL | UVOL1 |
| KEYS0 | AFE |

• TONE UNIT (TOP VIEW)

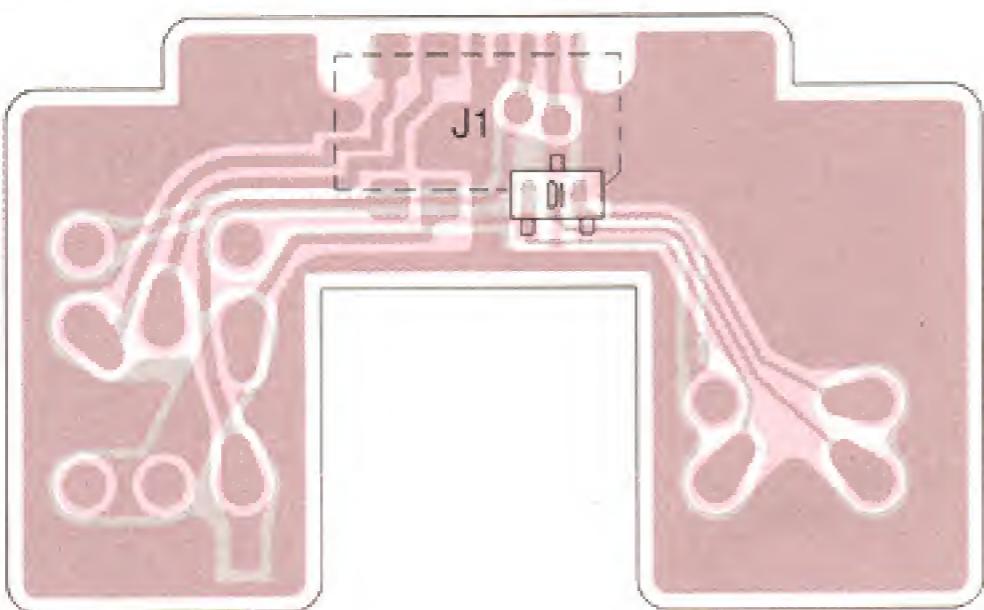
(U.S.A. and Korea only)



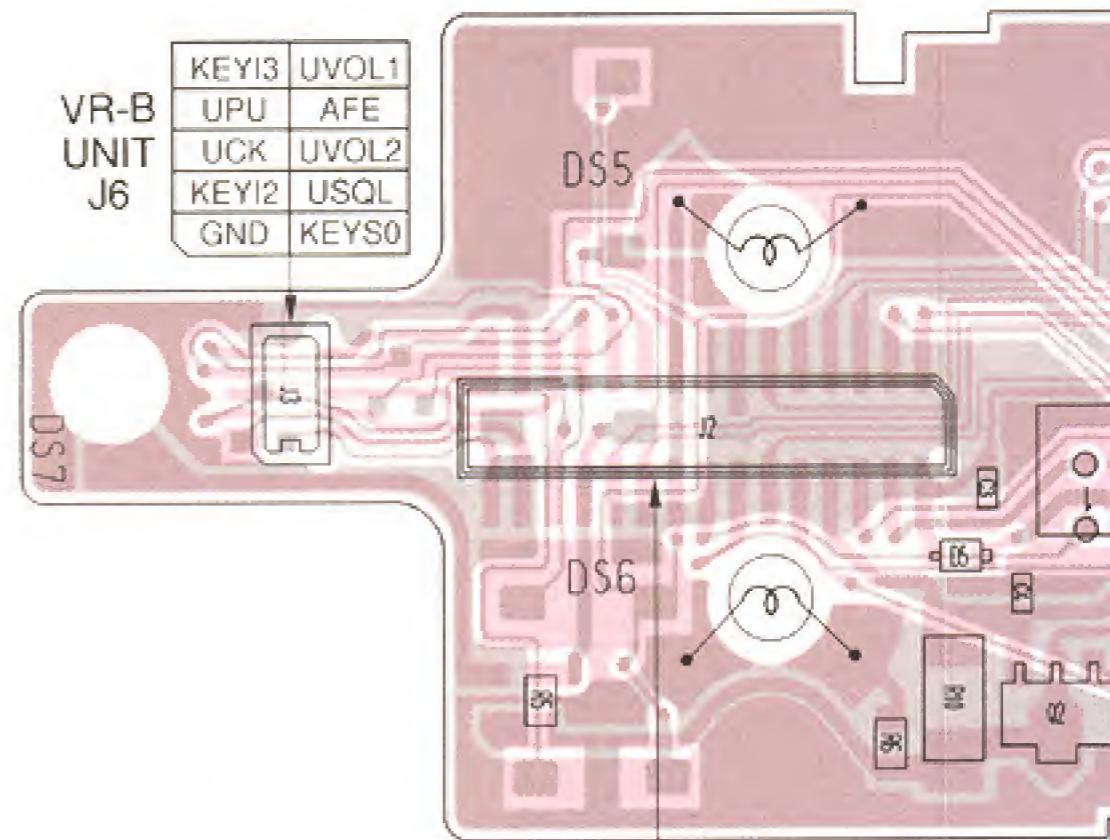
LOGIC UNIT
J4

| | |
|------|-------|
| NC | NC |
| 5V | DATA |
| NC | CK |
| NC | STBIA |
| GND | TSOLA |
| TONE | NC |

- VR-A UNIT (BOTTOM VIEW)



- DISPLAY UNIT (BOTTOM VIEW)

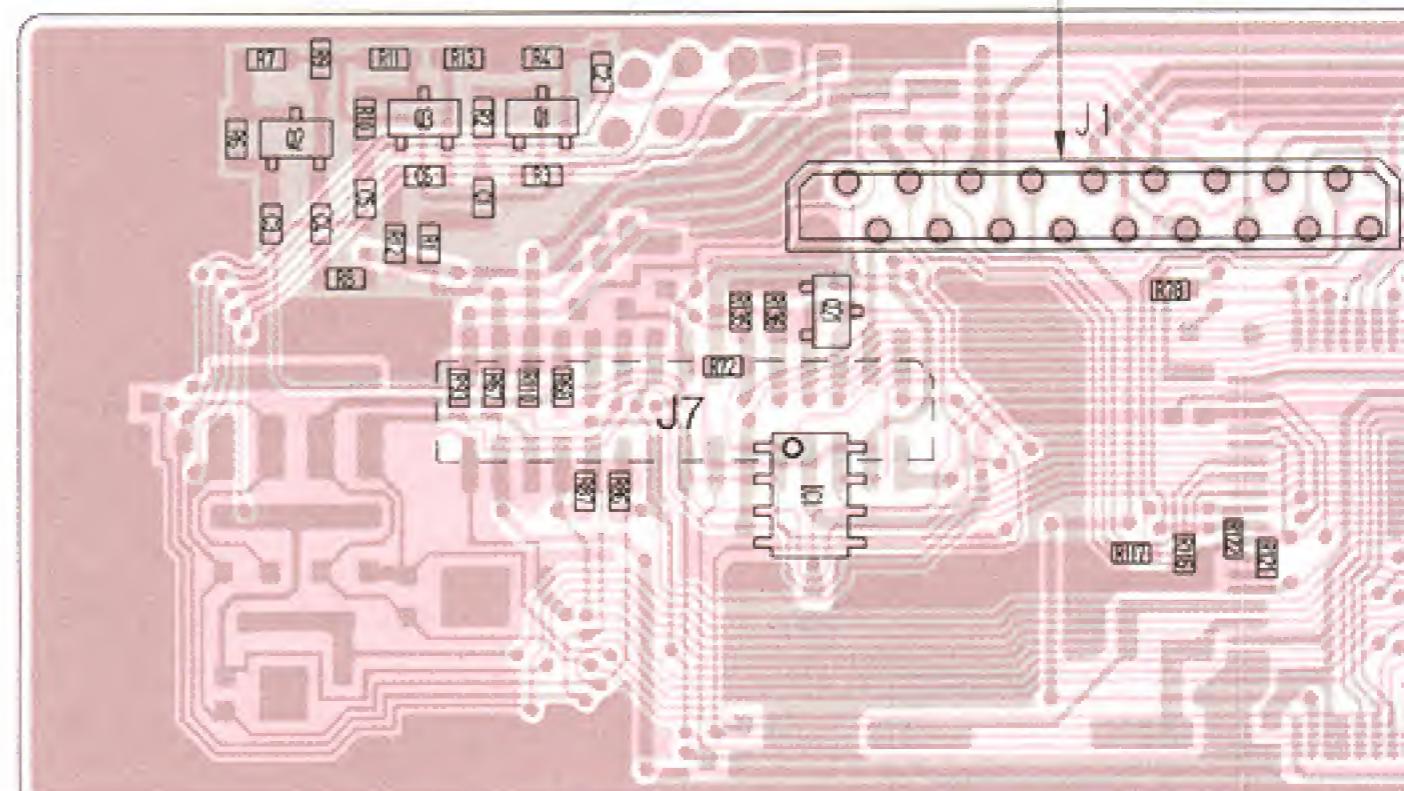


LOGIC
UNIT
J7

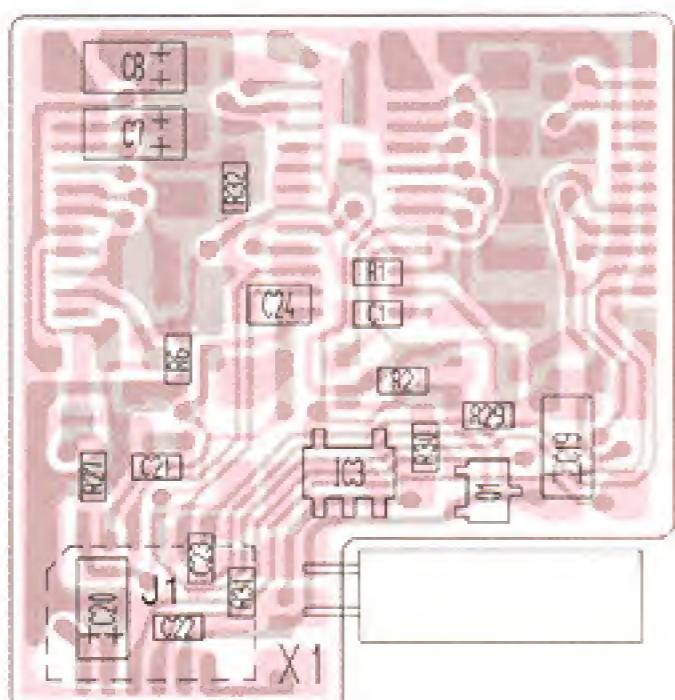
| | |
|-------|--------|
| KEYS0 | AFE |
| USQL | UVOL1 |
| KEY12 | UVOL2 |
| KEYS2 | KEY13 |
| KEY10 | UPU |
| KEY11 | UCK |
| KEYS1 | LOW |
| UNITS | POWER |
| BUSY | GND |
| LCE1 | LINH |
| DIM | LCE2 |
| 13.8V | LCCLK |
| CK | LCDATA |
| VOICE | DATA |
| L5V | STBSP |

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RadioAmateur.EU

- LOGIC UNIT (BOTTOM VIEW)

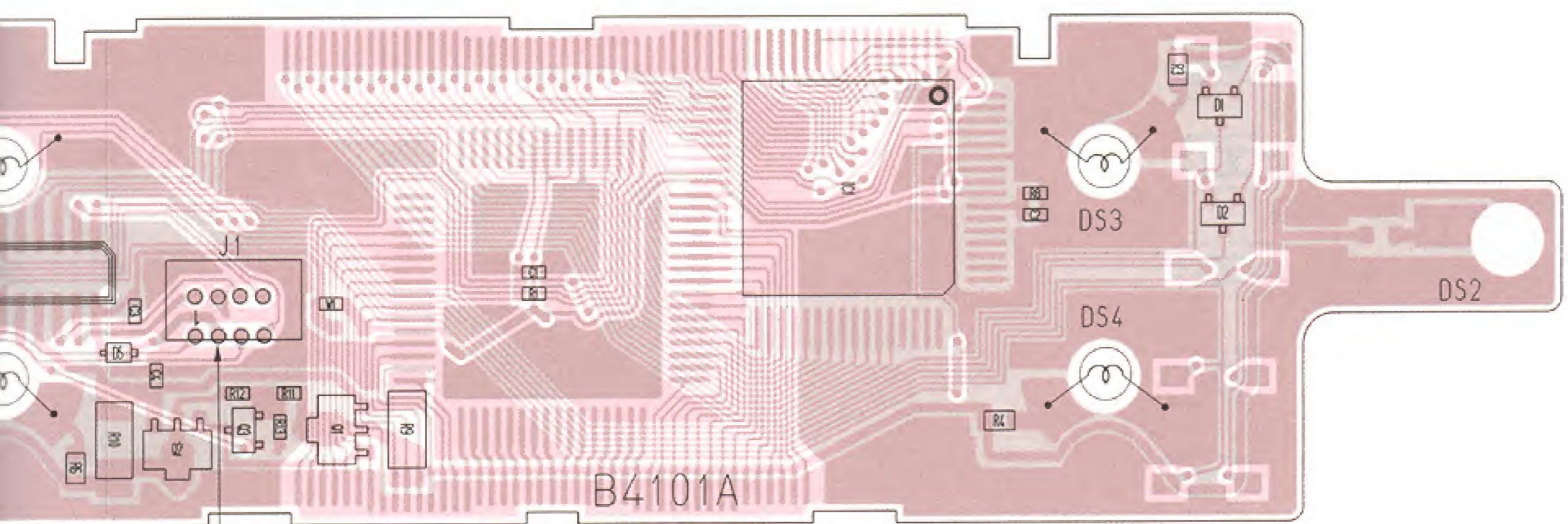


- TONE UNIT (BOTTOM VIEW)
(U.S.A. and Korea only)



UNITS | VOICE

| | |
|---------|---------|
| E | CK |
| DATA | SIBPLV |
| UNLK V | DET V |
| SQL V | SQSV |
| SRFV | AFE |
| UVOL1 | VVOL1 |
| UVOL2 | UVOL2 |
| DTMF | VOICE |
| DET | SIB VHF |
| SIB COM | |



VOICE
SYNTHESIZER
UNIT

| | | |
|------|-------|--------|
| MAIN | AFE | LCE2 |
| | 13.8V | LCCCLK |
| | CK | LCDATA |
| | VOICE | DATA |
| | L5V | STBSP |

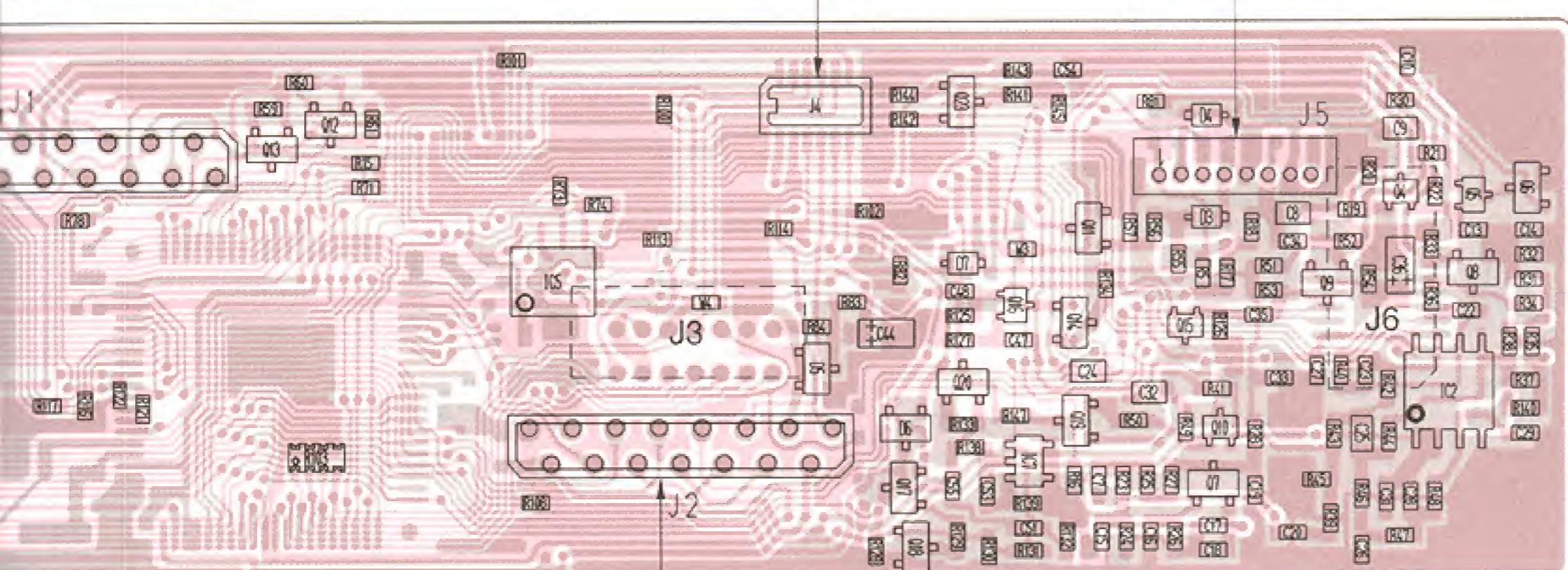
| | | |
|--------|---------|---------|
| MAIN-A | AFE | LCE2 |
| UNIT | UVOL1 | UVOL2 |
| | UVOL1 | UVOL2 |
| | DTMF | VOICE |
| | DET | STB VHF |
| | STB COM | |

TONE UNIT
(OPTION)

| | |
|--------|-------|
| TONE | DETA |
| GND | TSQLA |
| STBTB | STBTA |
| DETB | CK |
| 5V | DATA |
| UNIT T | TSQLB |

| | |
|------|------|
| M8V | MU/D |
| MU/D | OUT |
| OUT | PTT |
| PTT | MIC |
| MIC | MIC |
| E | NC |

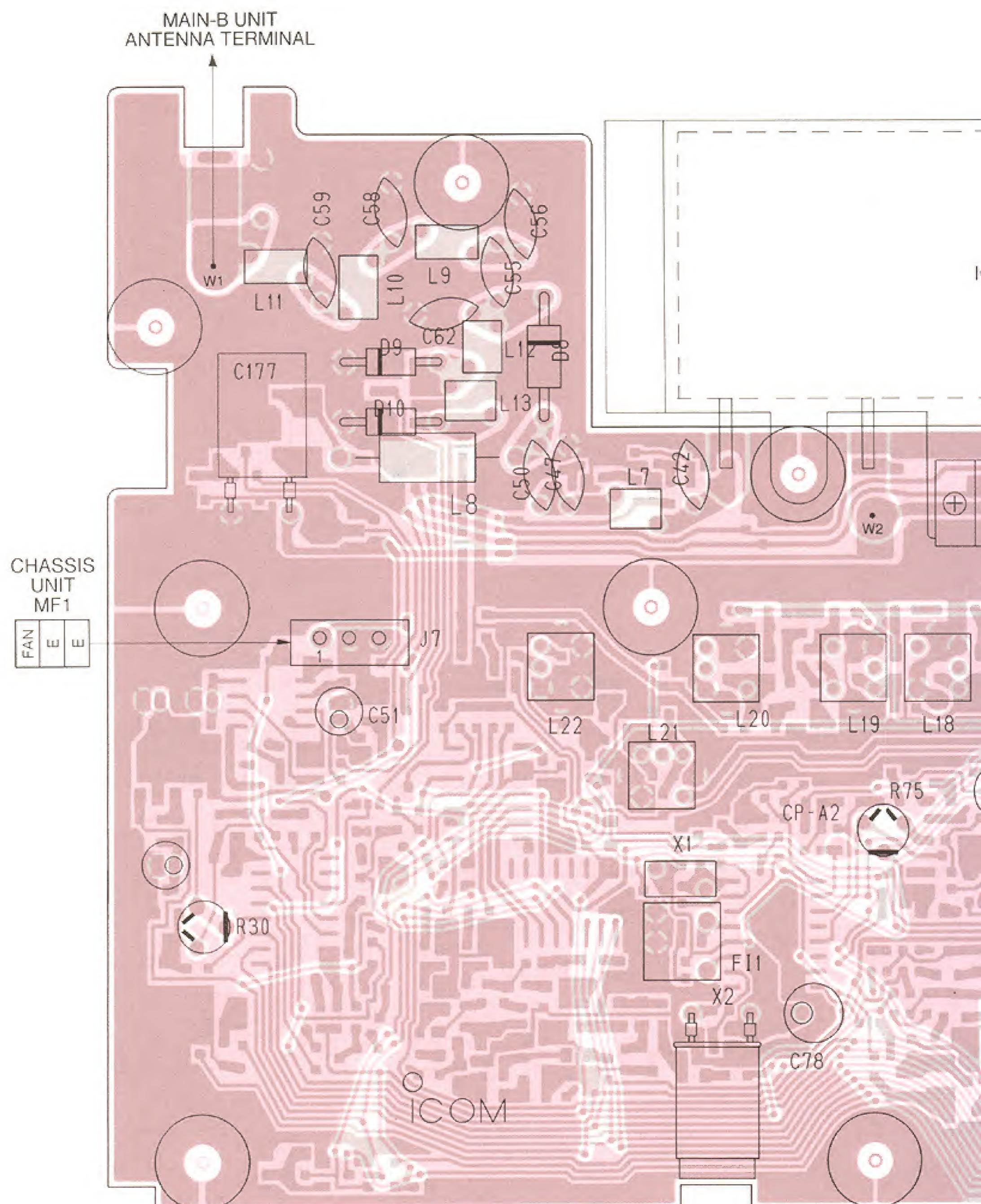
MIC
UNIT



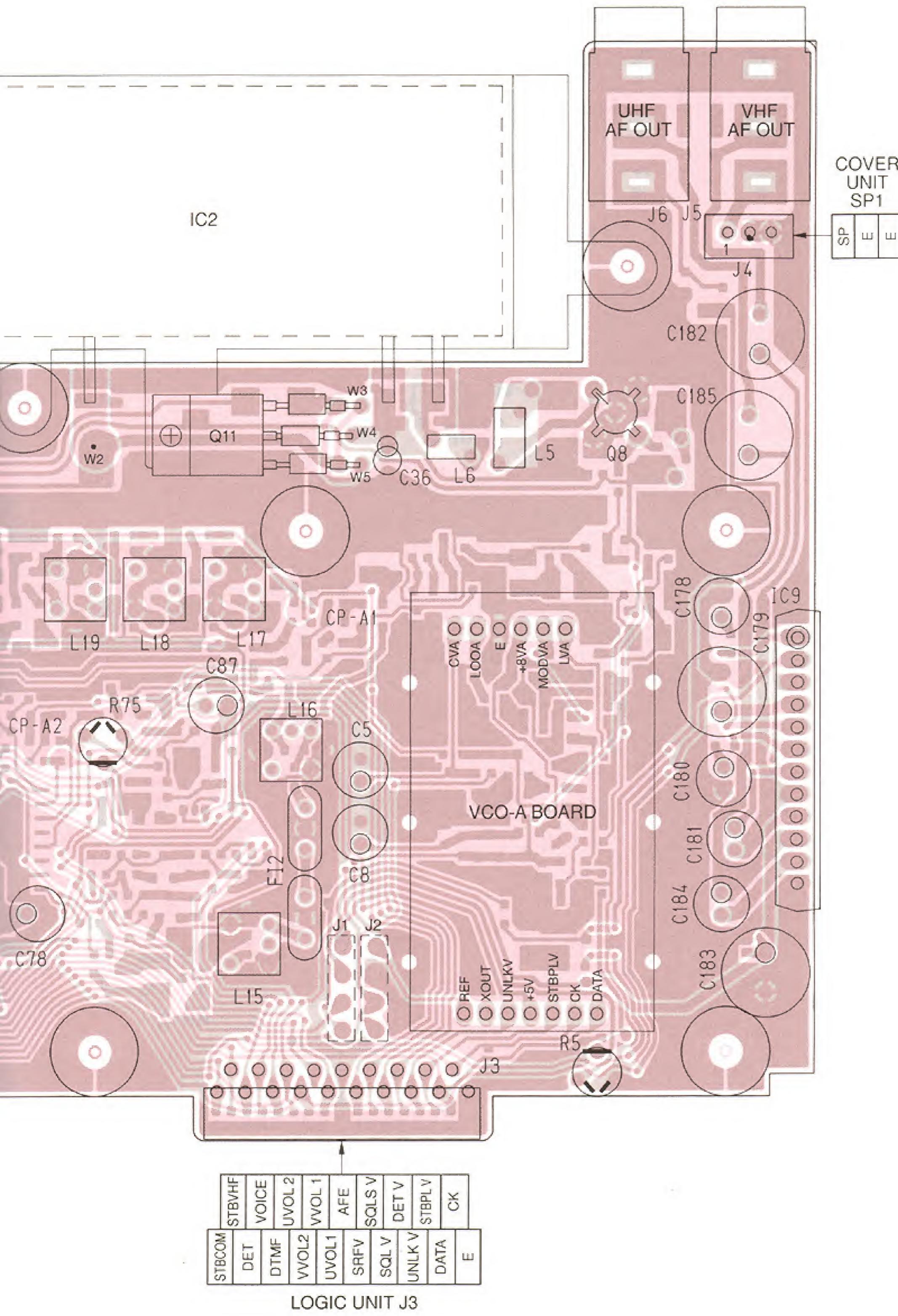
MAIN-B
UNIT
J2

8-2 MAIN-A UNIT

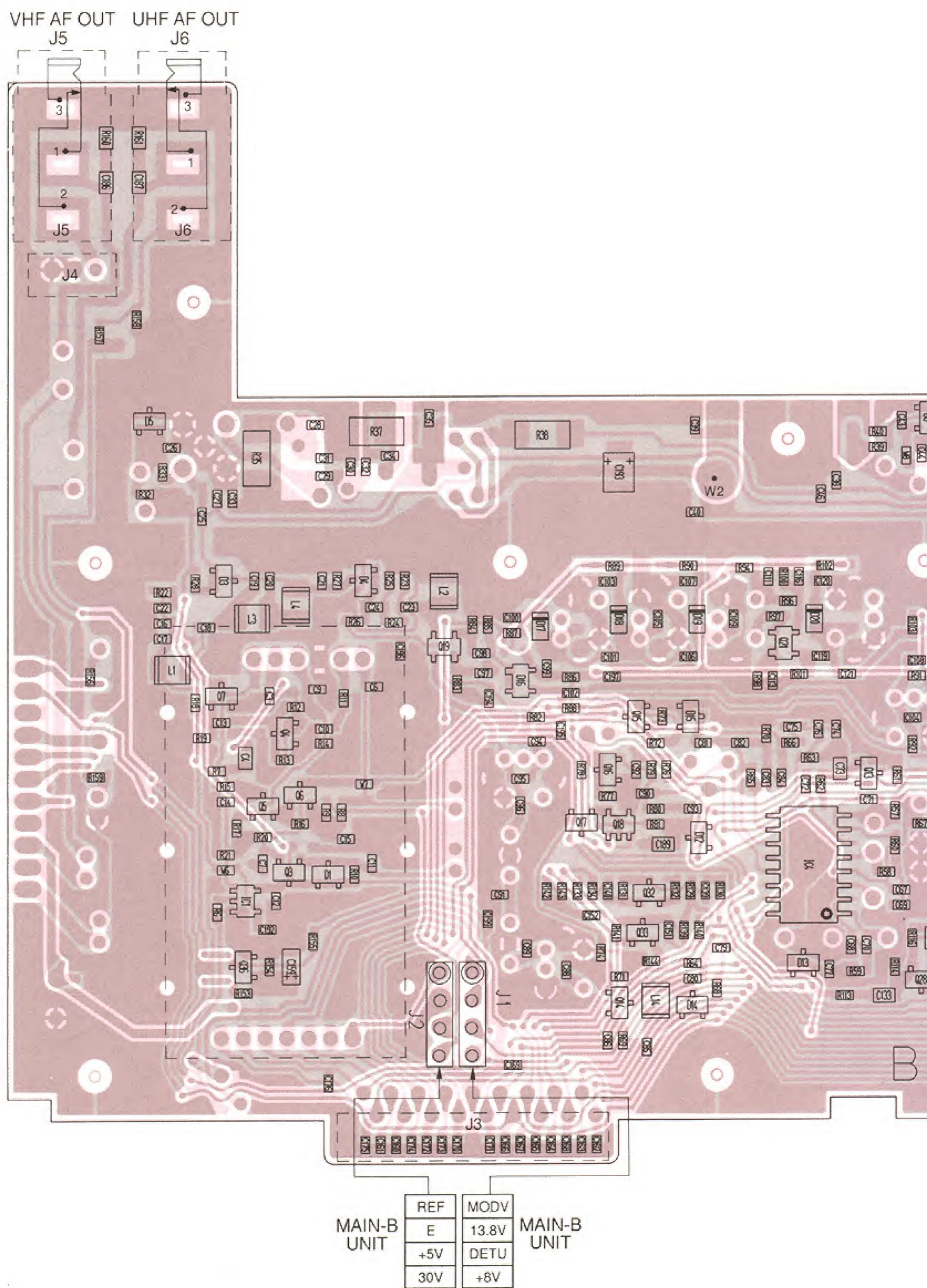
• MAIN-A UNIT (TOP VIEW)

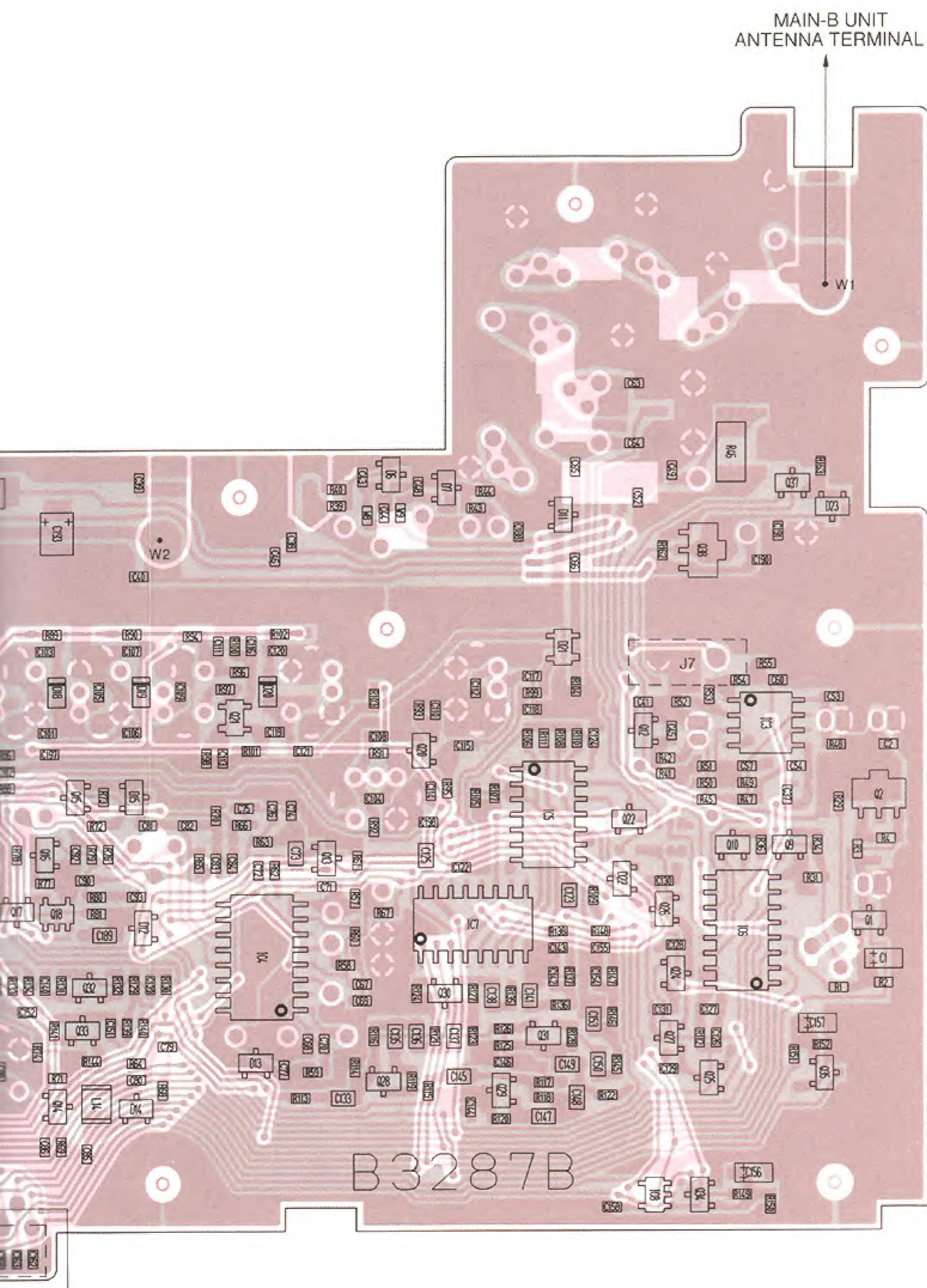


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.



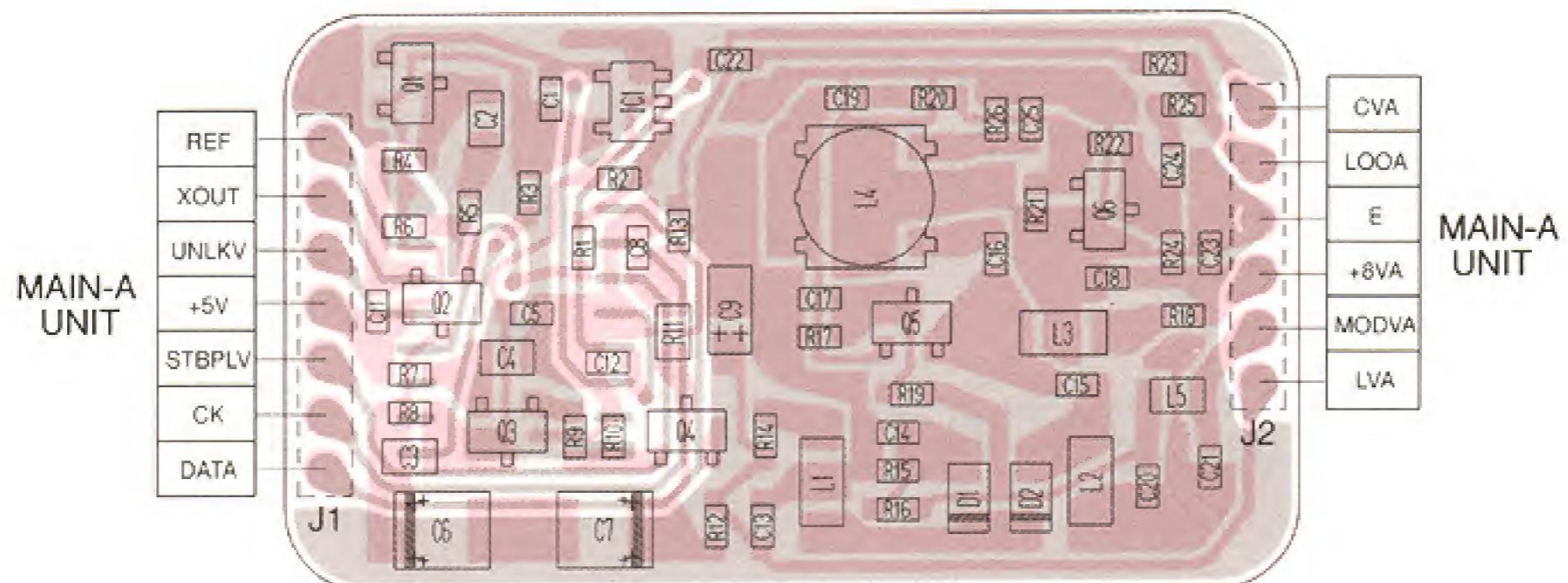
• MAIN-A UNIT (BOTTOM VIEW)



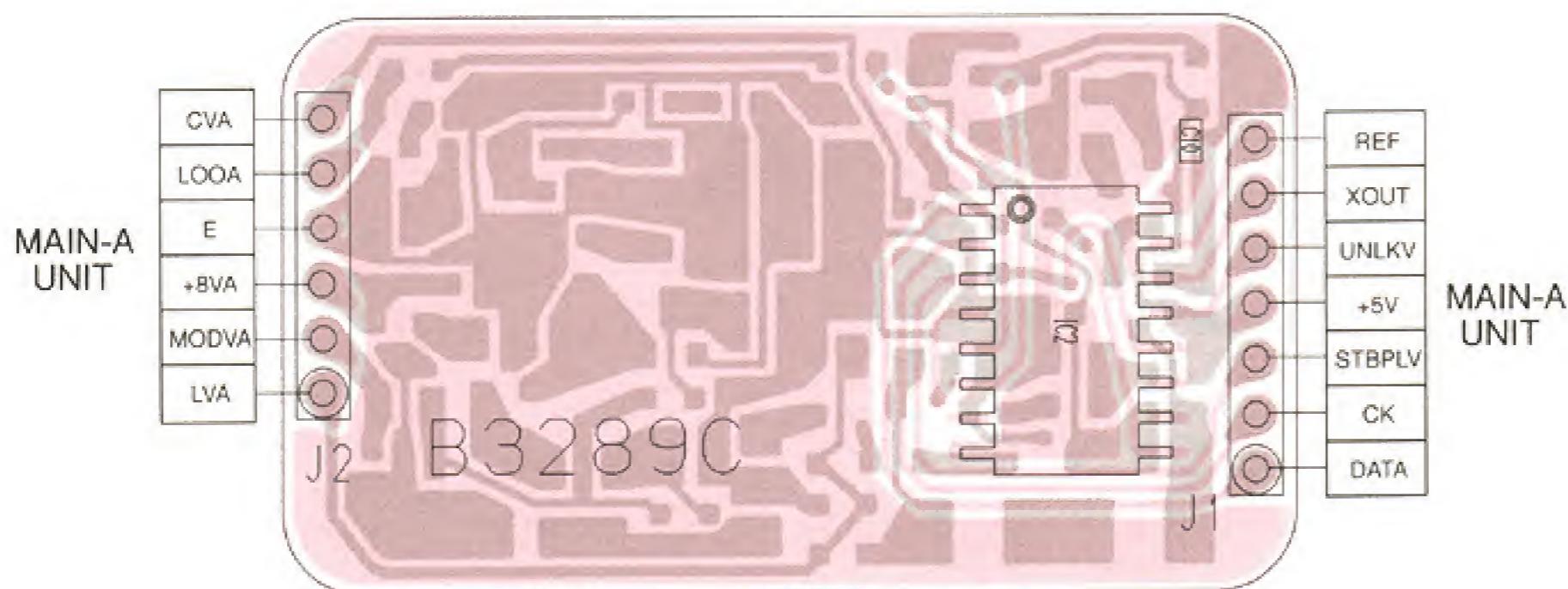


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

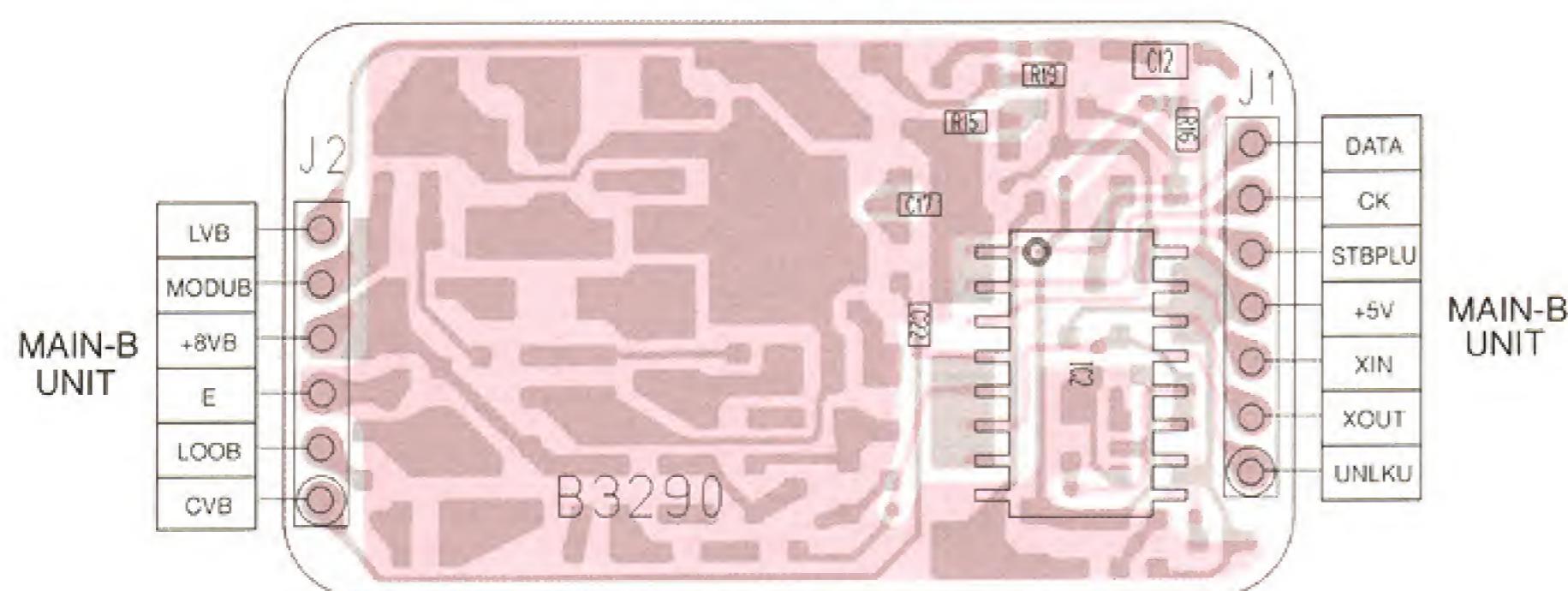
• VCO-A BOARD (TOP VIEW)



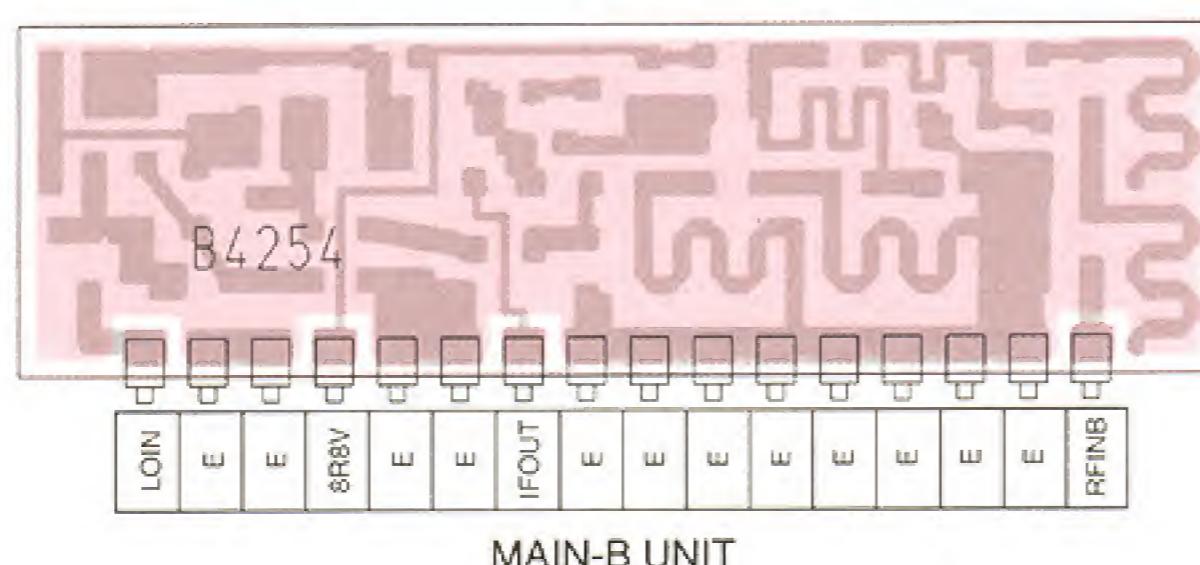
• VCO-A BOARD (BOTTOM VIEW)



• VCO-B BOARD (BOTTOM VIEW)

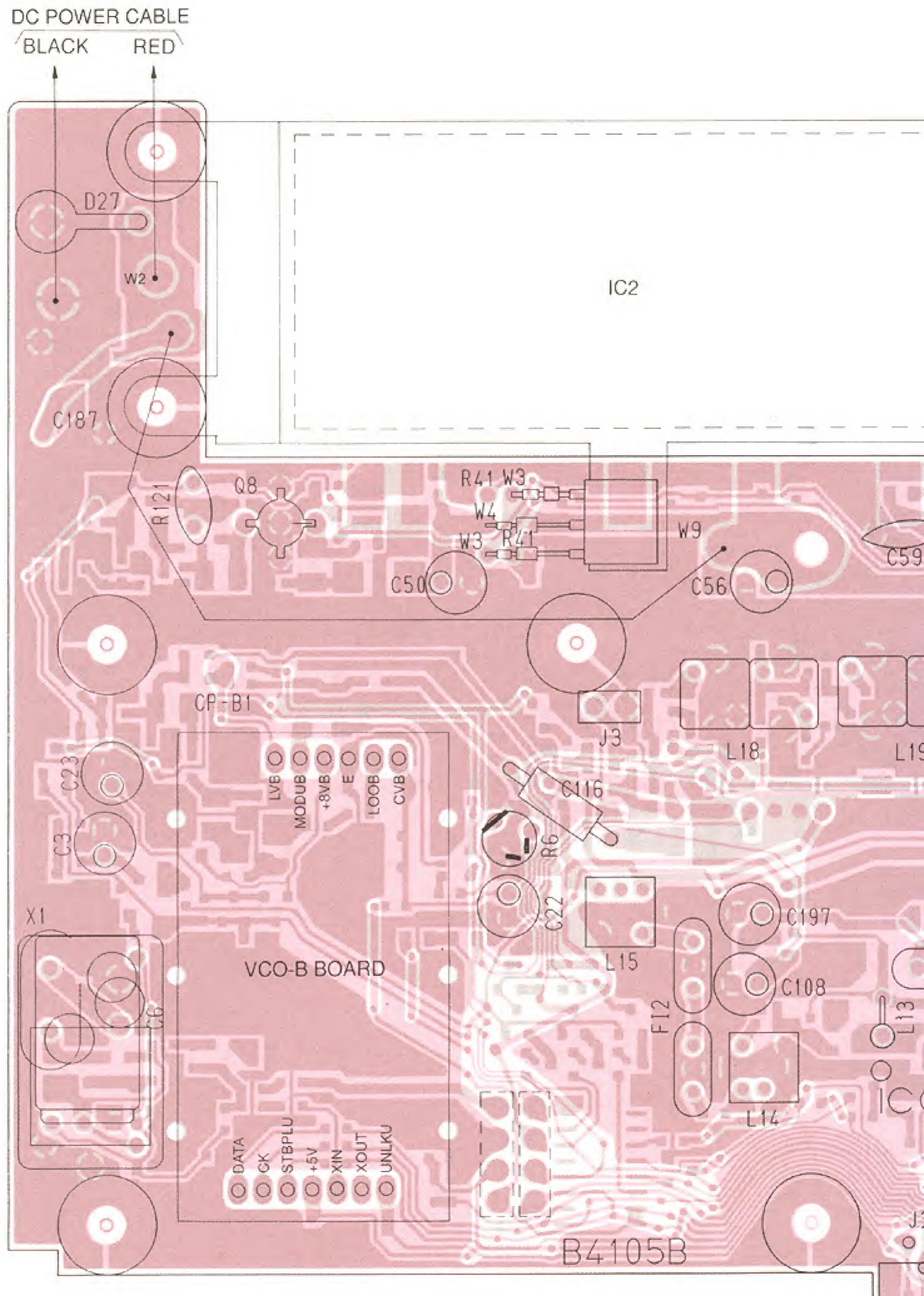


• B-BAND UNIT (BOTTOM VIEW)

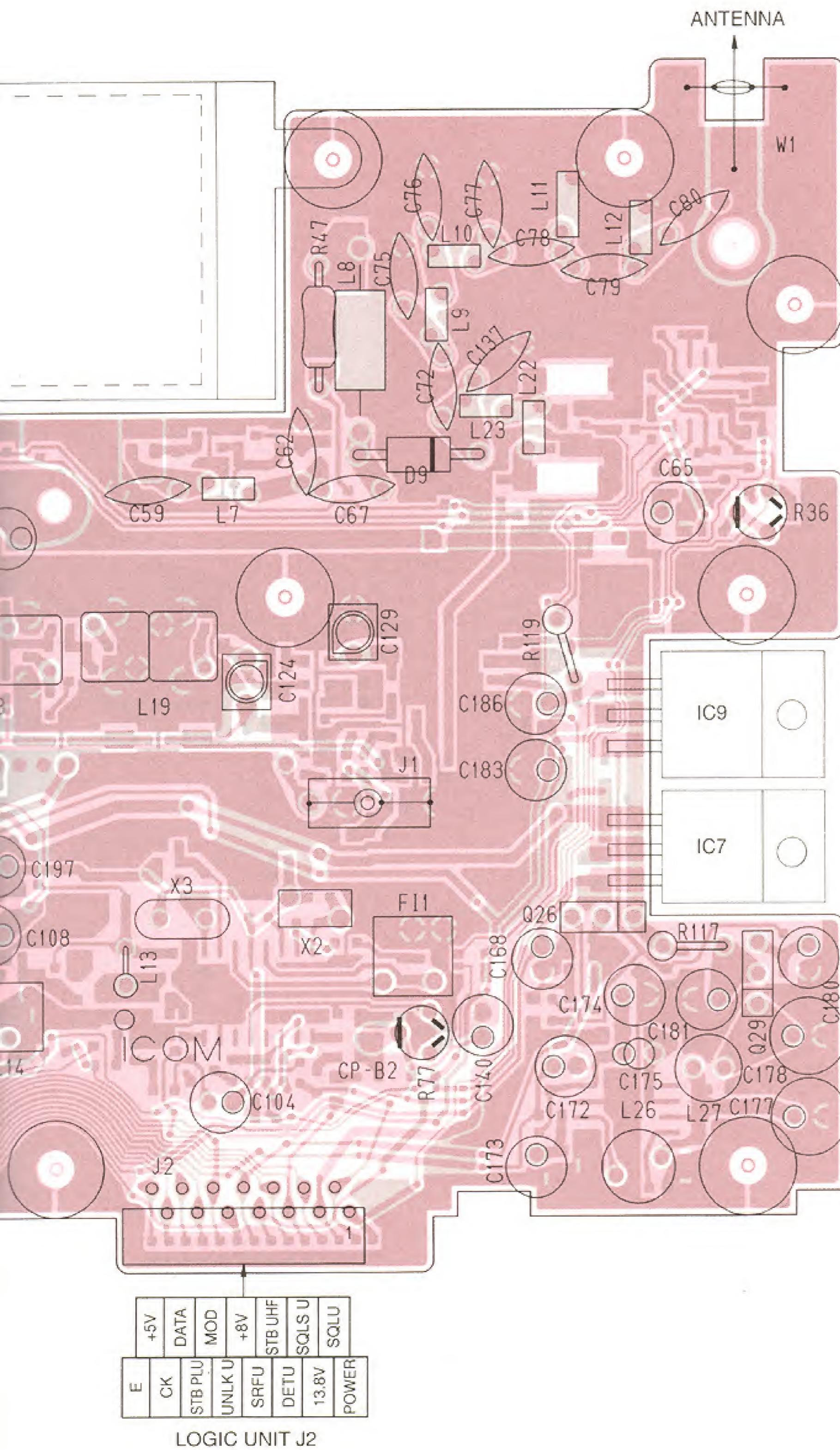


8-3 MAIN-B UNIT

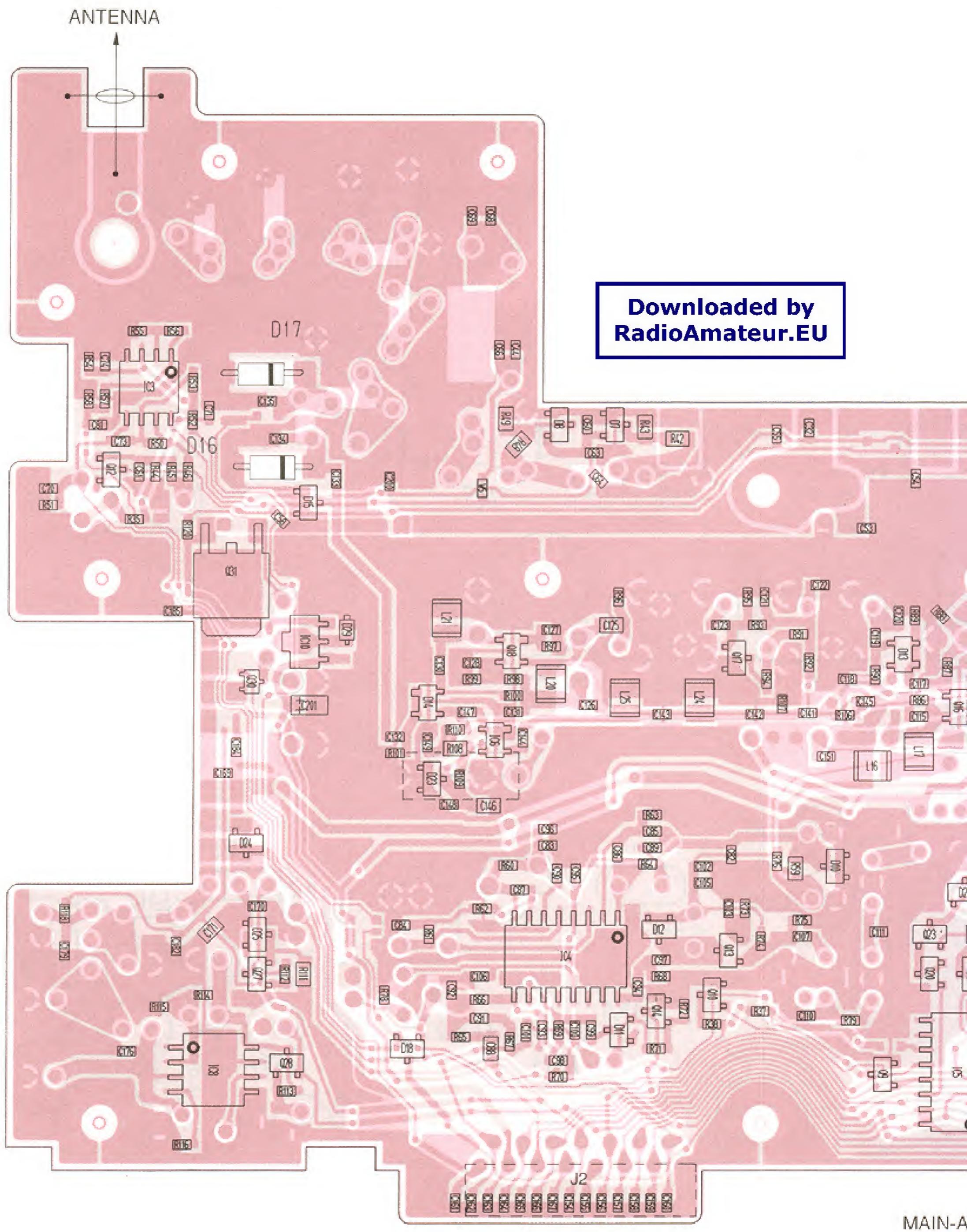
- MAIN-B UNIT (TOP VIEW)

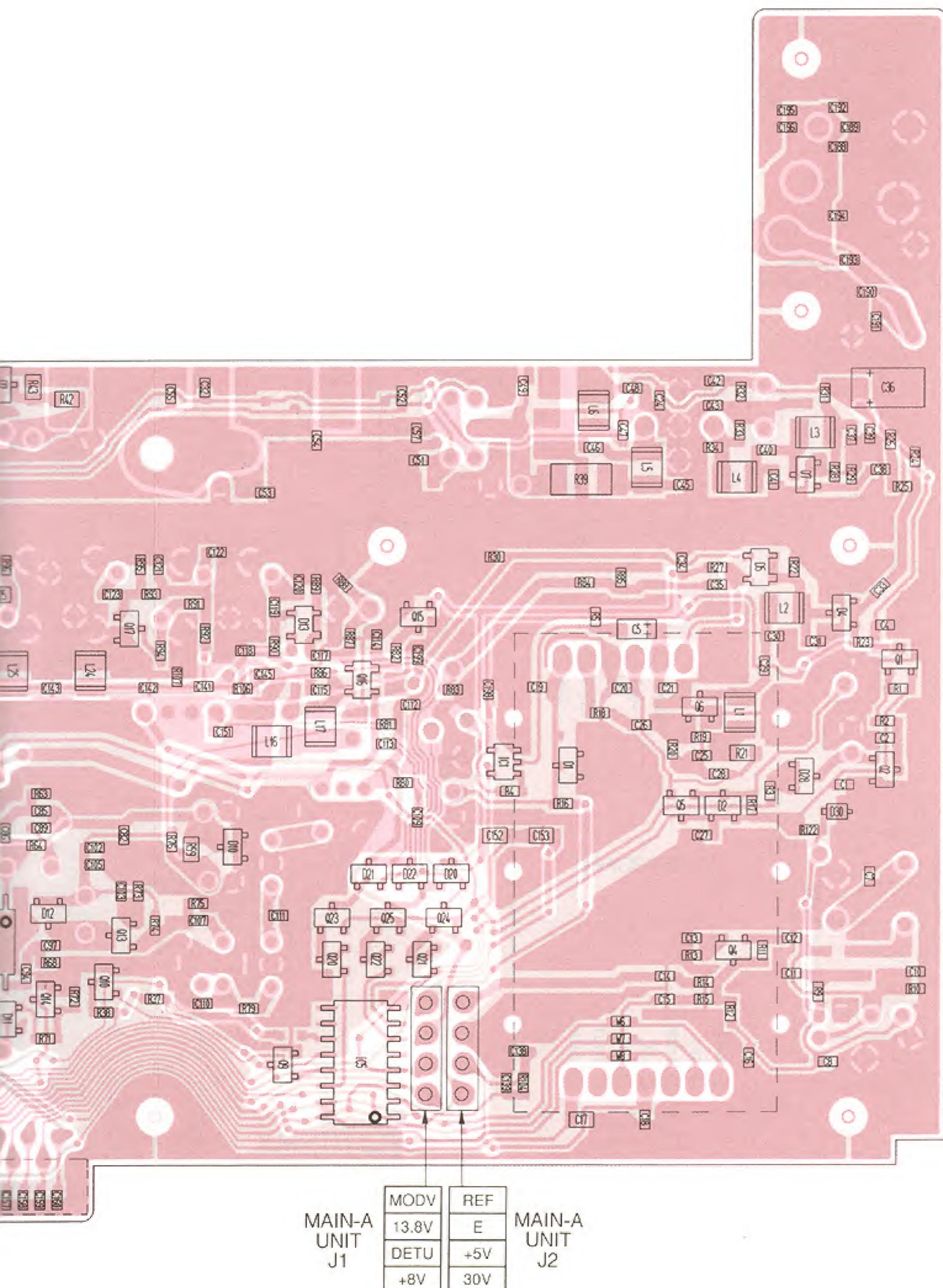


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.



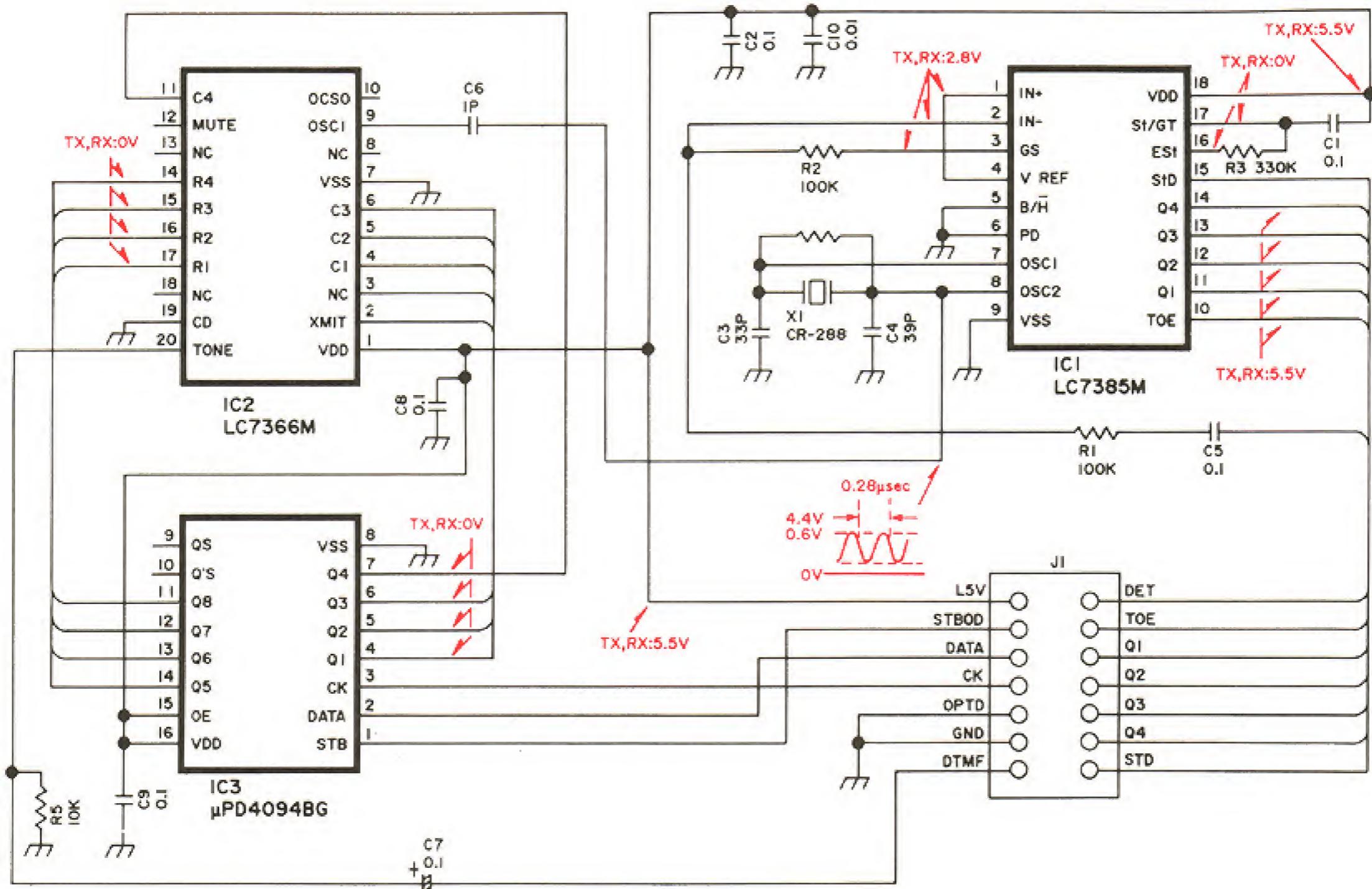
• MAIN-B UNIT (BOTTOM VIEW)



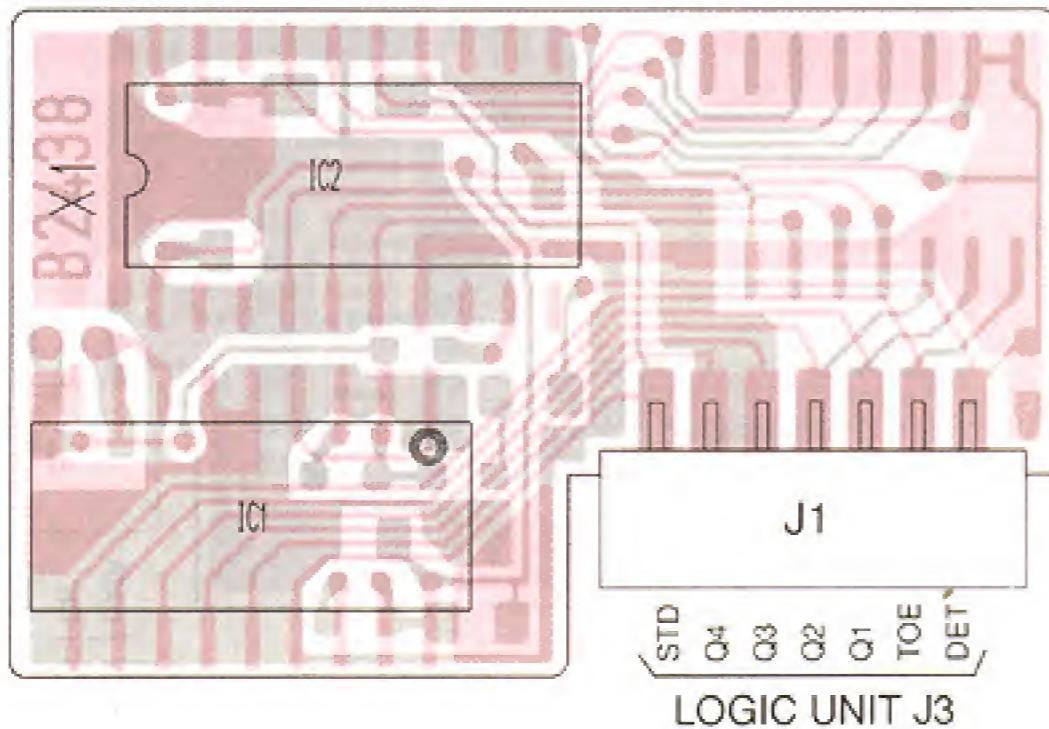


SECTION 9 OPTIONAL UNITS

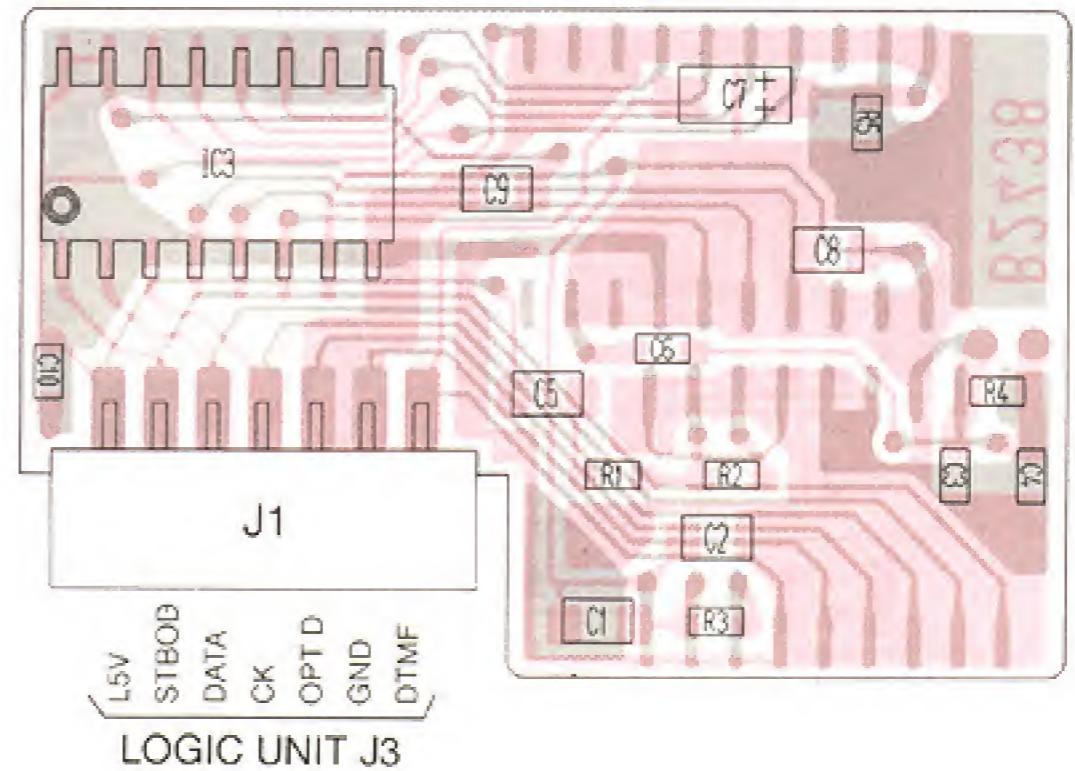
9-1 UT-55 DTMF ENCODER/DECODER UNIT



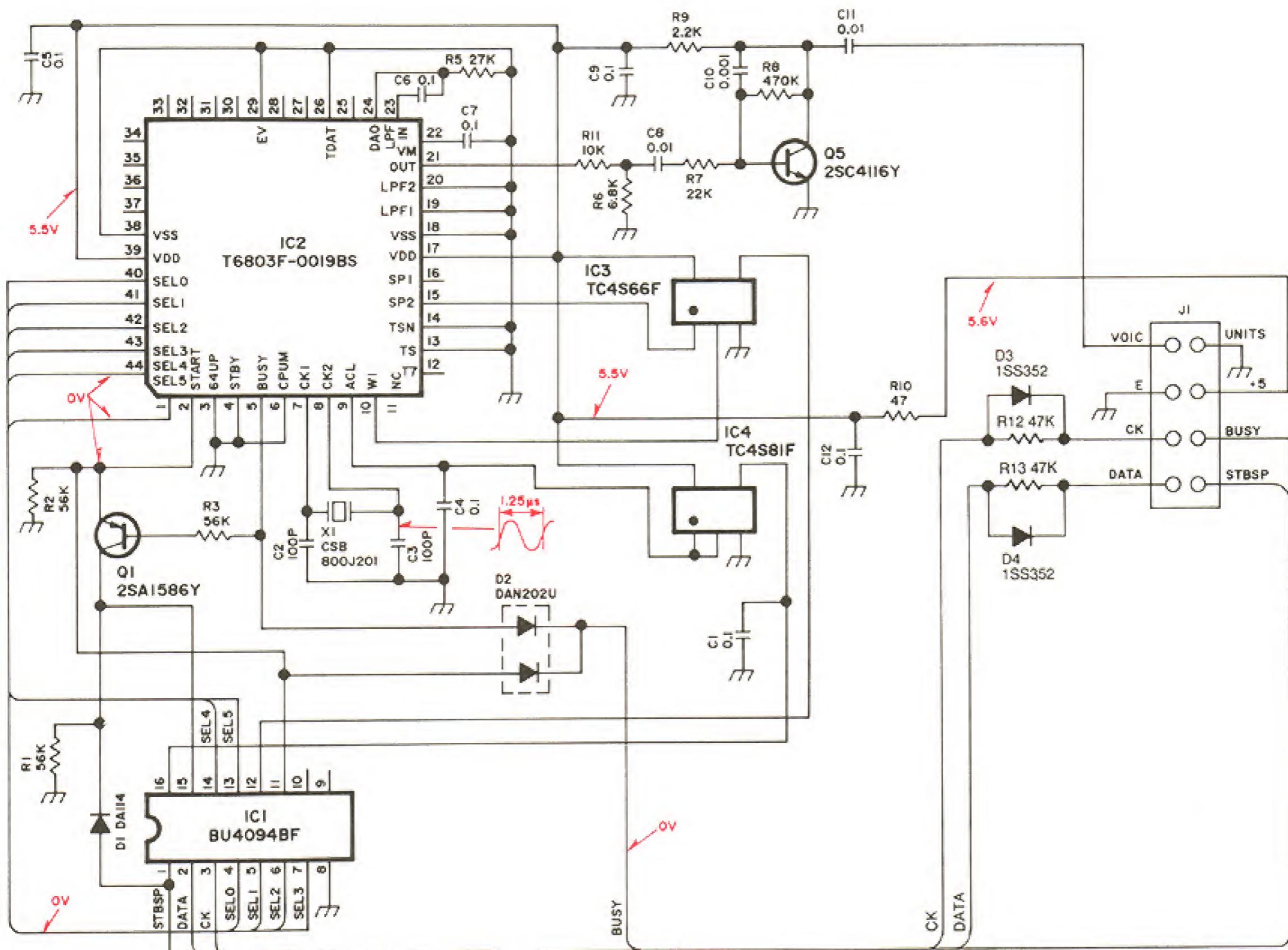
- BOARD LAYOUT (TOP VIEW)



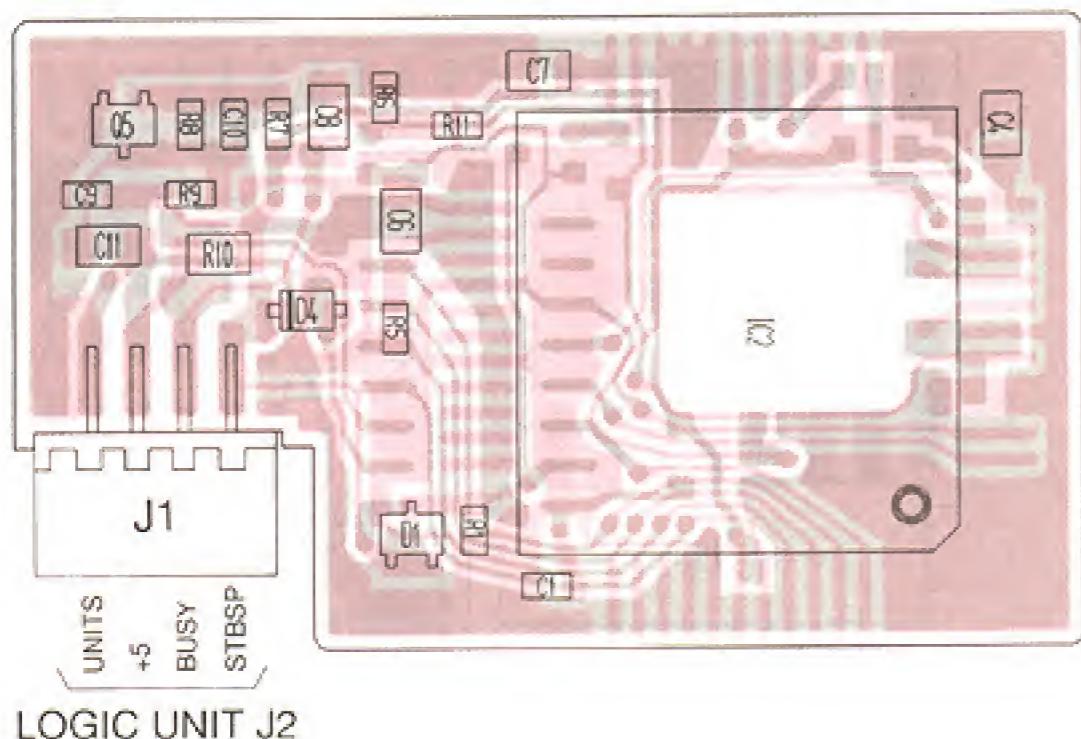
- BOARD LAYOUT (BOTTOM VIEW)



9-2 UT-66 VOICE SYNTHESIZER UNIT

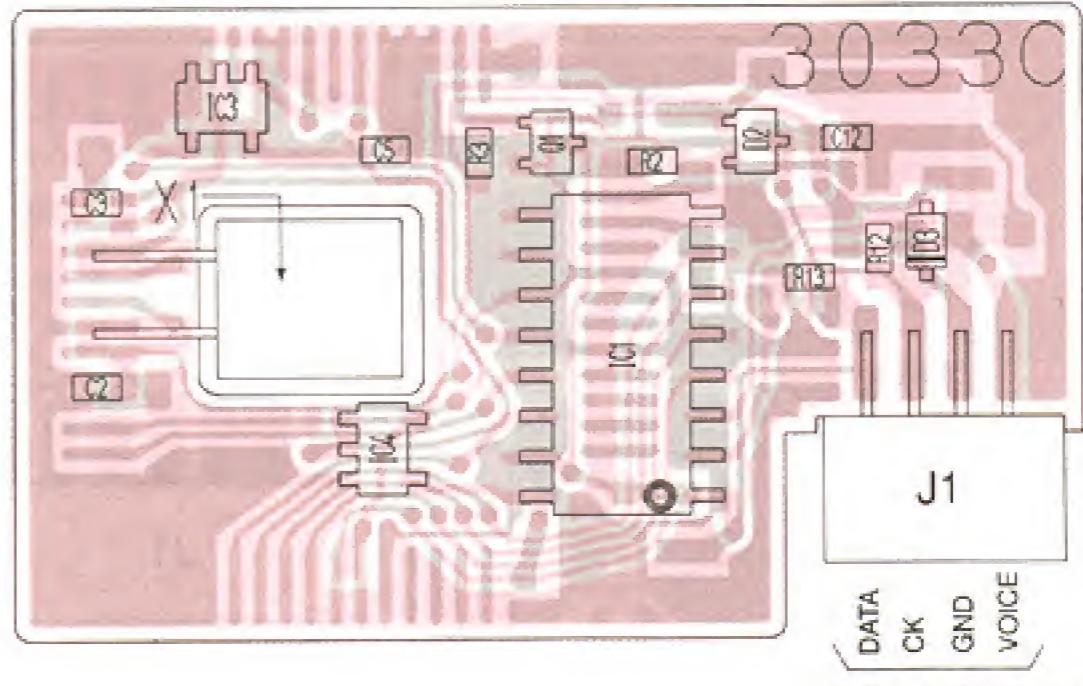


• BOARD LAYOUT (TOP VIEW)



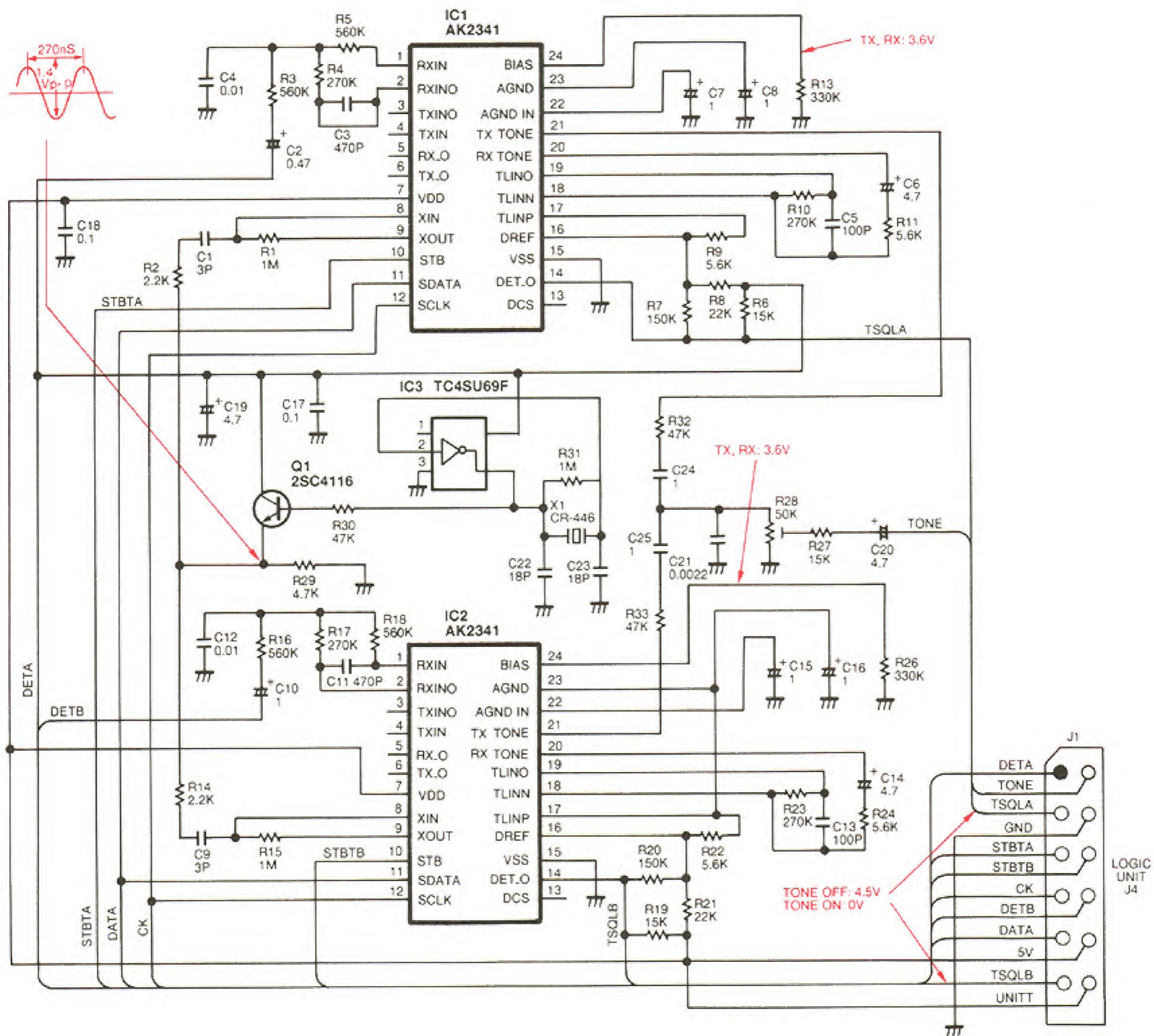
LOGIC UNIT J2

• BOARD LAYOUT (BOTTOM VIEW)

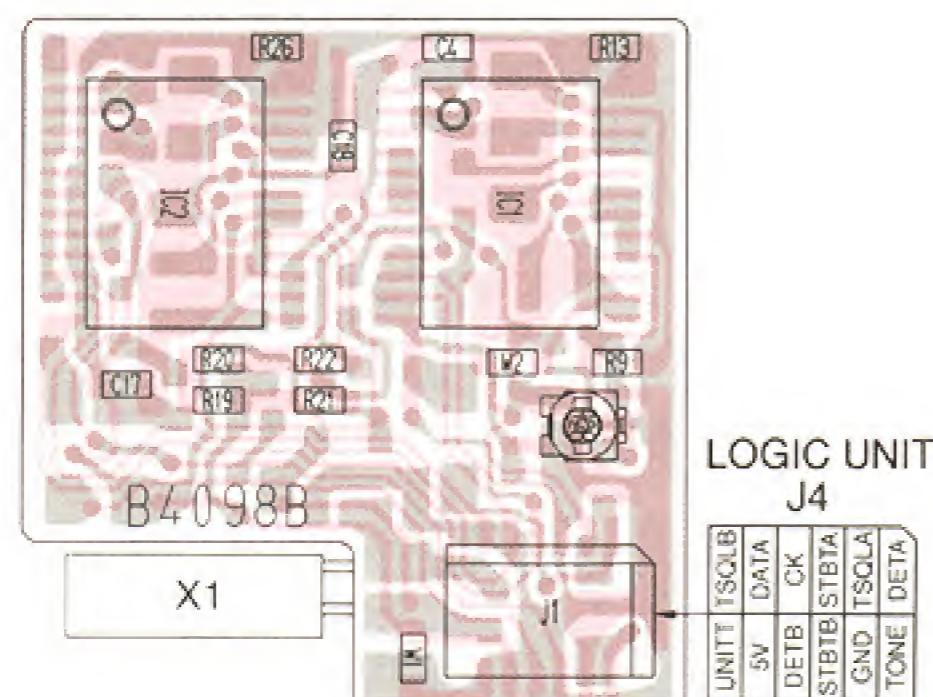


LOGIC UNIT J2

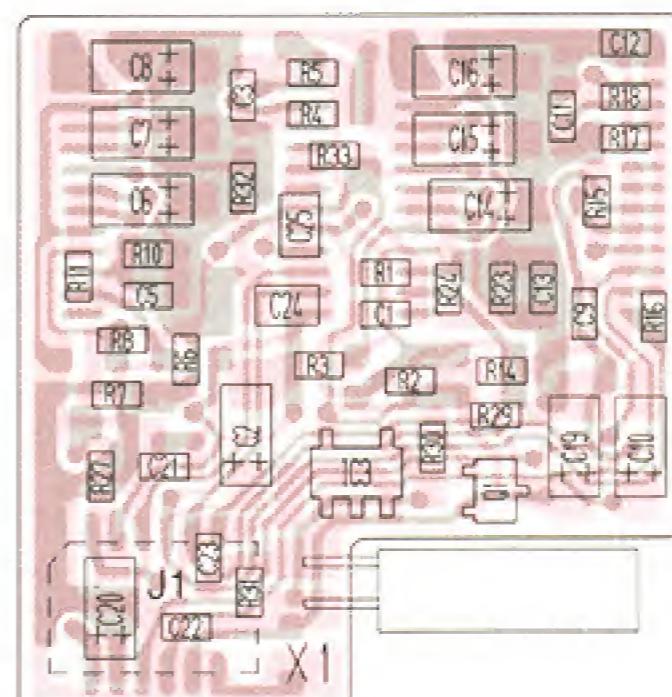
9-3 UT-89 TONE SQUELCH UNIT



• BOARD LAYOUT (TOP VIEW)

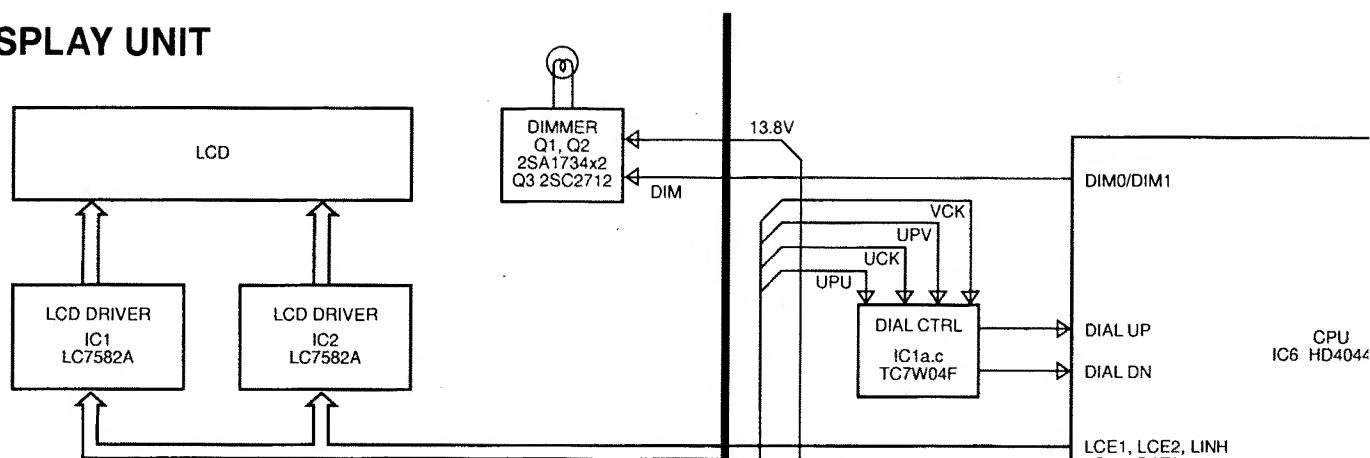


• BOARD LAYOUT (BOTTOM VIEW)



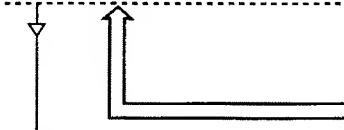
SECTION 10 BLOCK DIAGRAM

DISPLAY UNIT

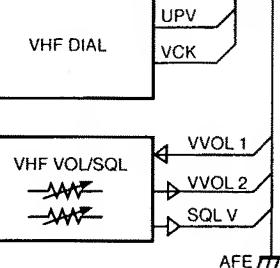


VOICE SYNTHESIZER UNIT

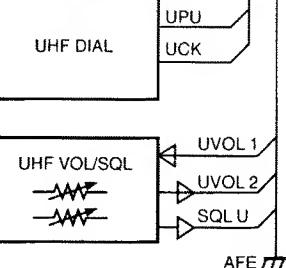
VOICE (UT-66) OPTION



VR-A UNIT



VR-B UNIT



MICROPHONE (HM-77-79)

AFO
+8V
MIC
MIC UP/DN
PTT

AF BUFF
Q1 2SC2712

UVOL 1

PTT CTRL
Q1 2SC2712
D3 1SS353

DTMF ENC/DEC UNIT
(UT-55) OPTION

LIMI
D5 1SS

USA KOR
TONE UNIT

OPTION
TONE SQL UNIT
(UT-89)

UP/DN CTRL
Q12 2SC2712
Q13 RN2404

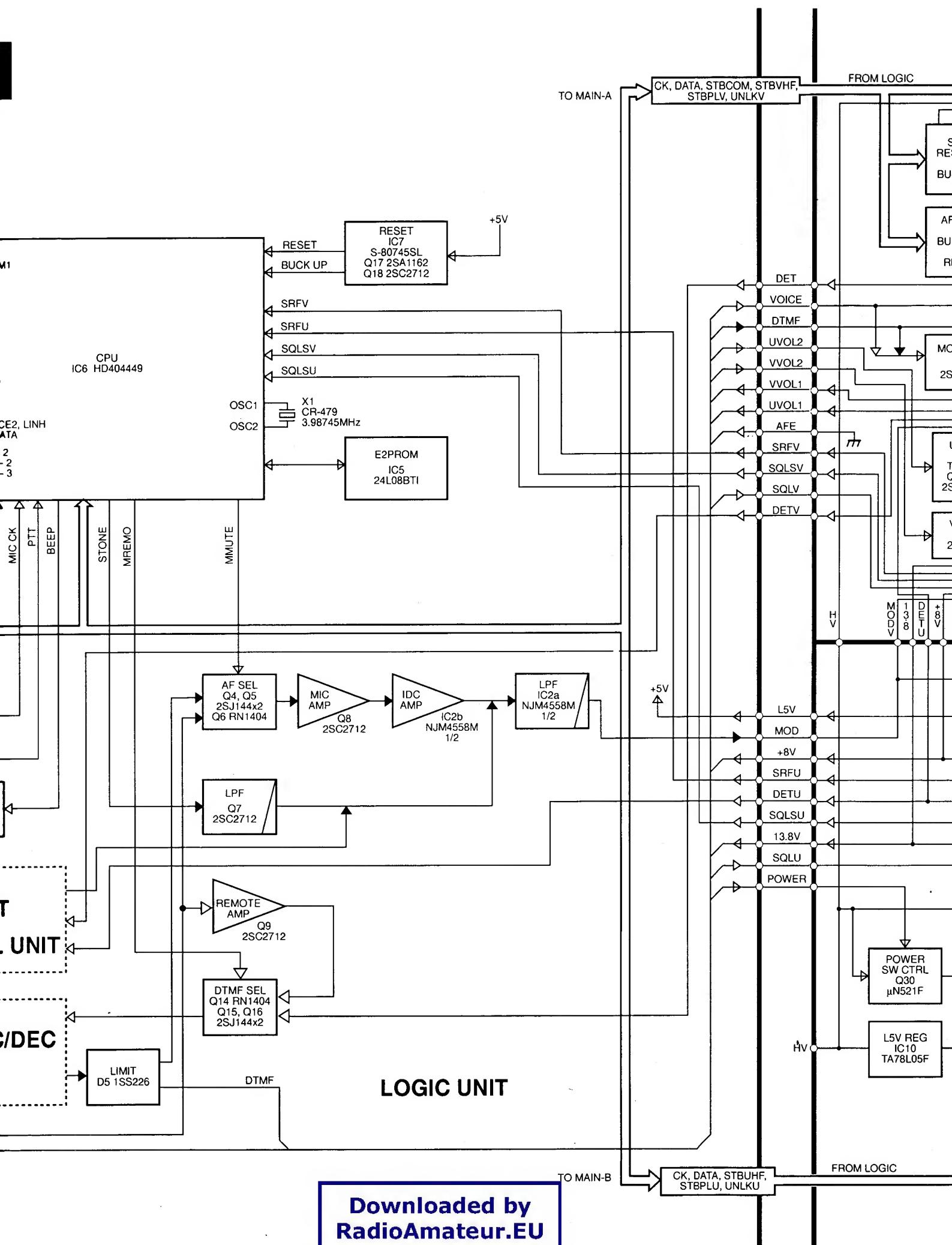
BEEP CTRL
IC1b TC7W04F
Q2, Q3 2SC2712x2

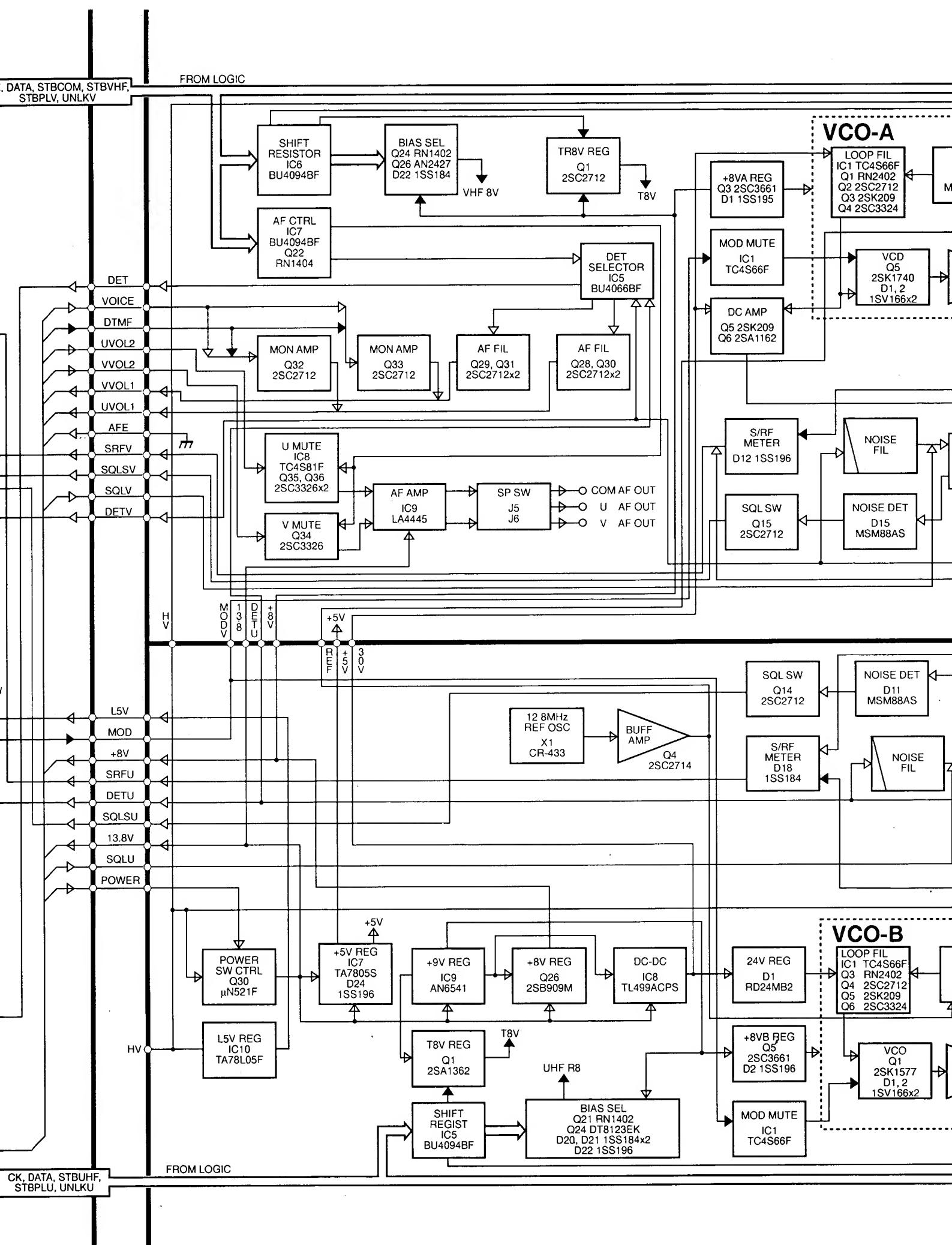
CPU
IC6 HD4044

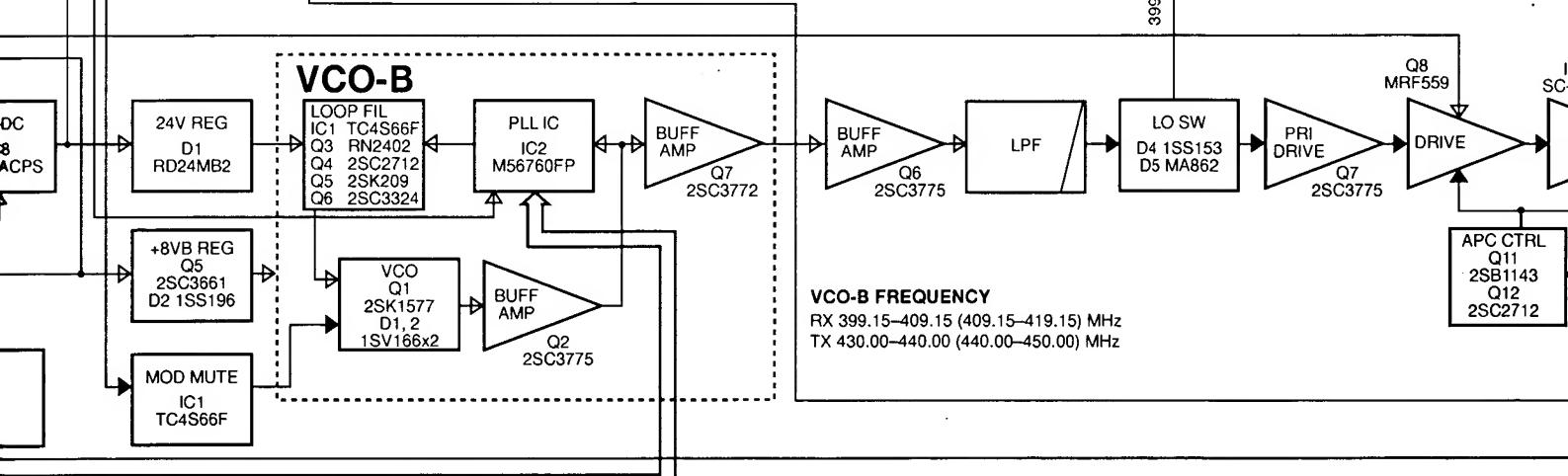
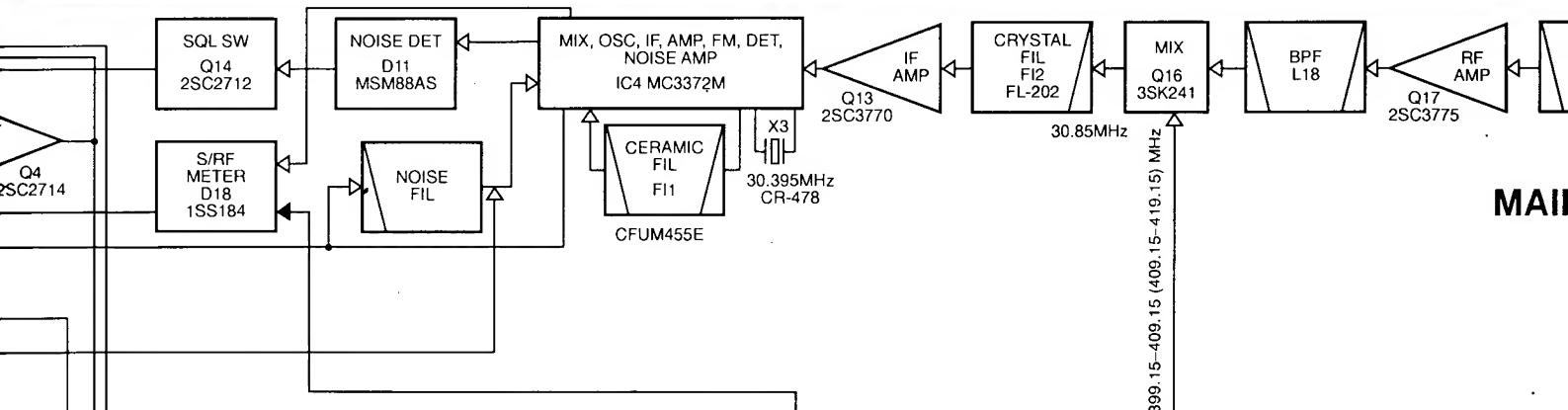
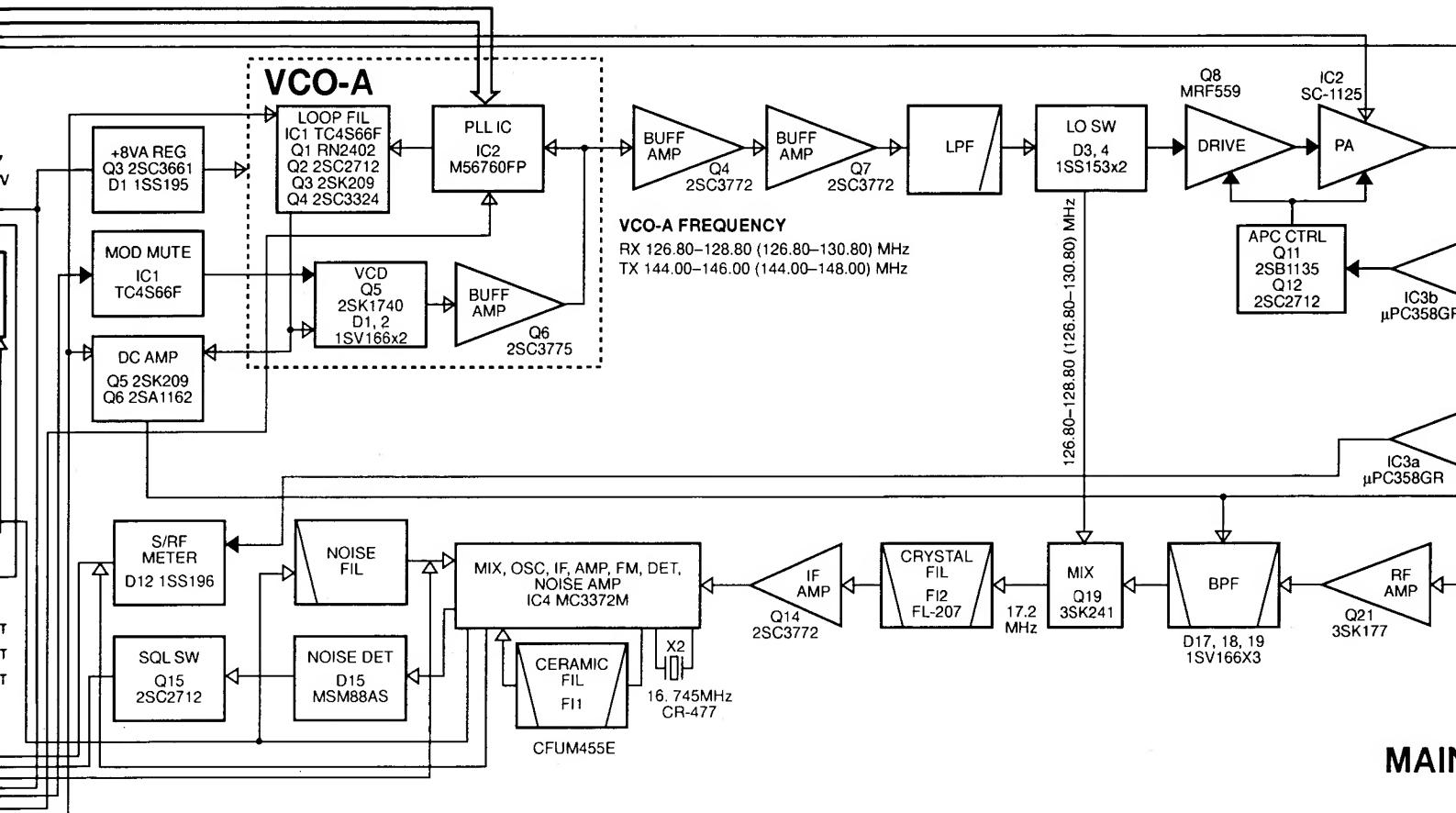
LCE1, LCE2, LINH
LCK, LDATA

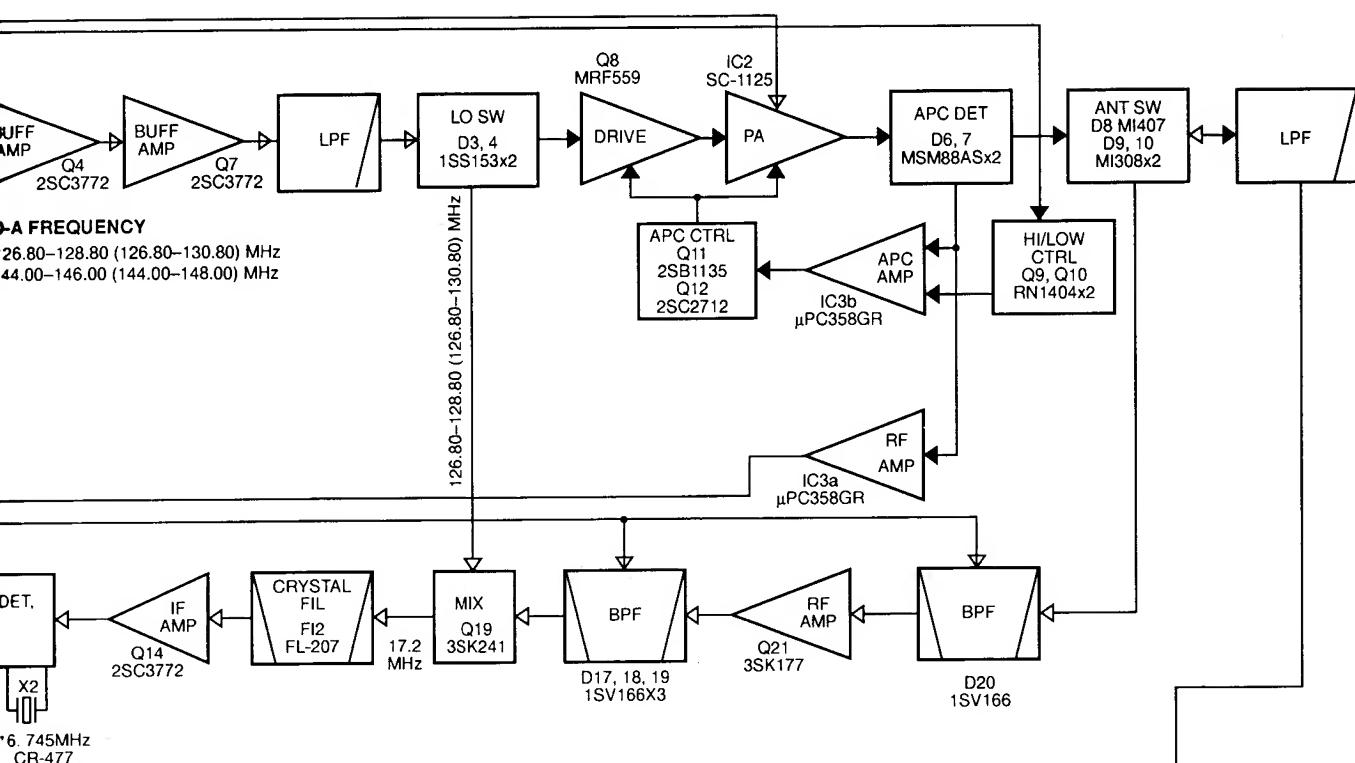
INIS0-2
KEYS0-2
KEY10-3

MIC UP/DN
MIC CK
PTT
BEEP
STONE
MRF MO

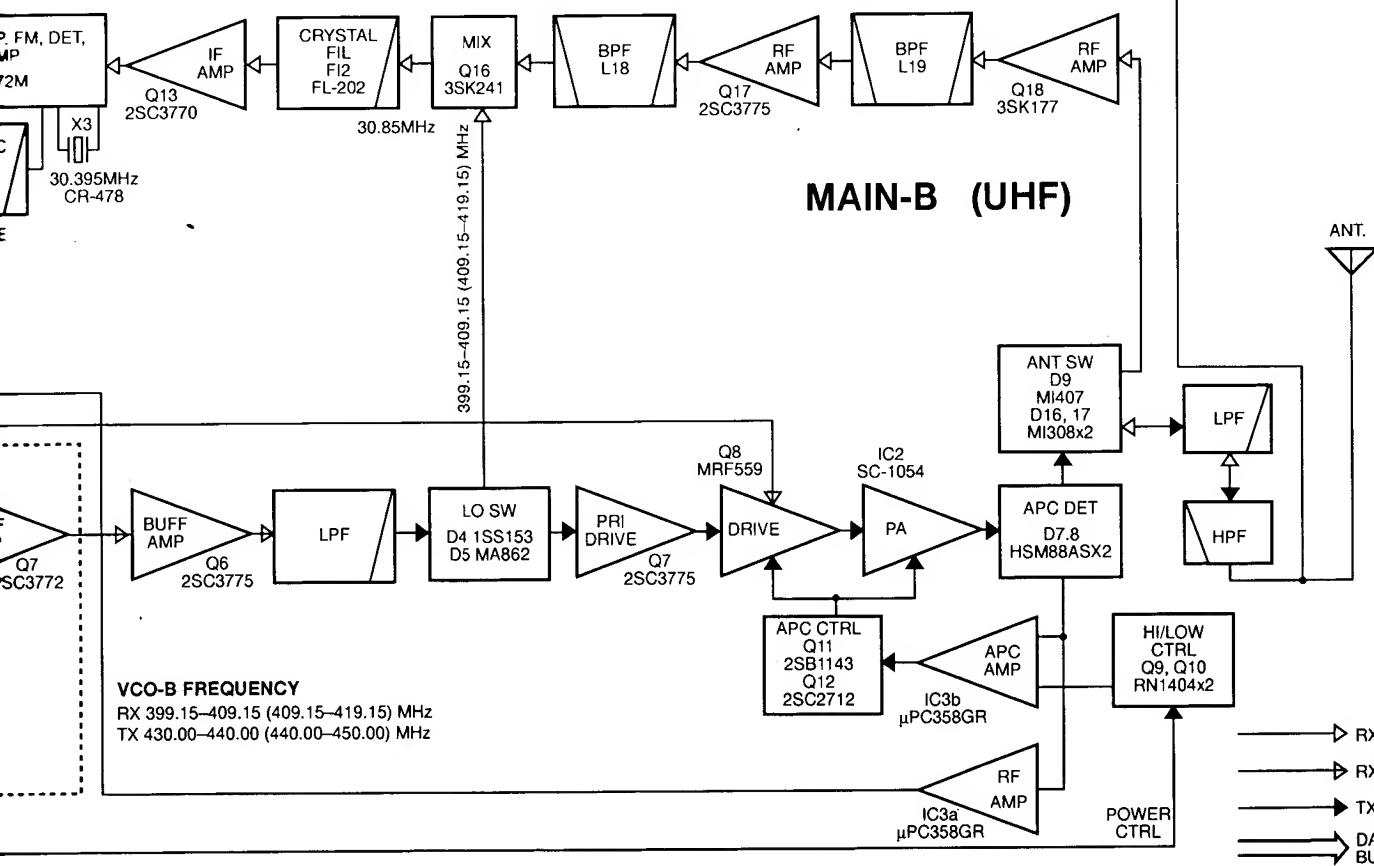








MAIN-A (VHF)



The diagram consists of four parallel horizontal arrows pointing to the right. Above the top arrow is the label 'RX'. Below the second arrow from the top is the label 'RX/TX'. Below the third arrow from the top is the label 'TX'. Below the bottom arrow is the label 'DATA BUS'.

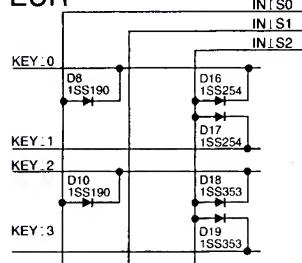
SECTION 11 VOLTAGE DIAGRAM

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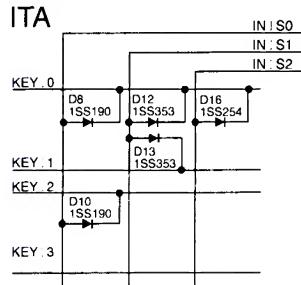
VOICE SYNTHESIZER UNIT (OPTION)

INITIAL MATRIX (LOGIC unit)

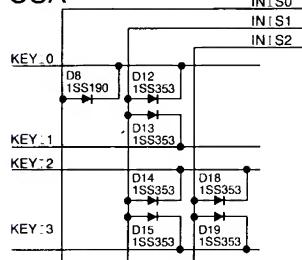
EUR



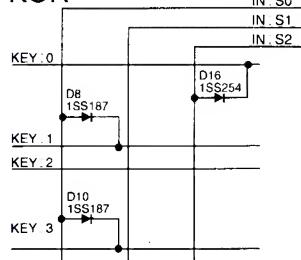
ITA



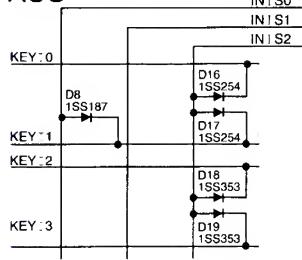
USA



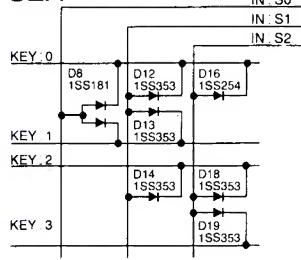
KOR



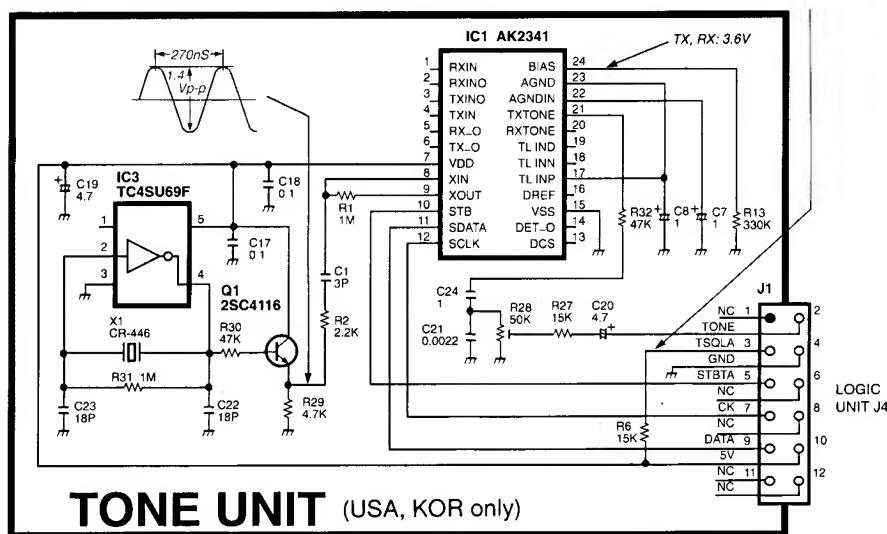
AUS



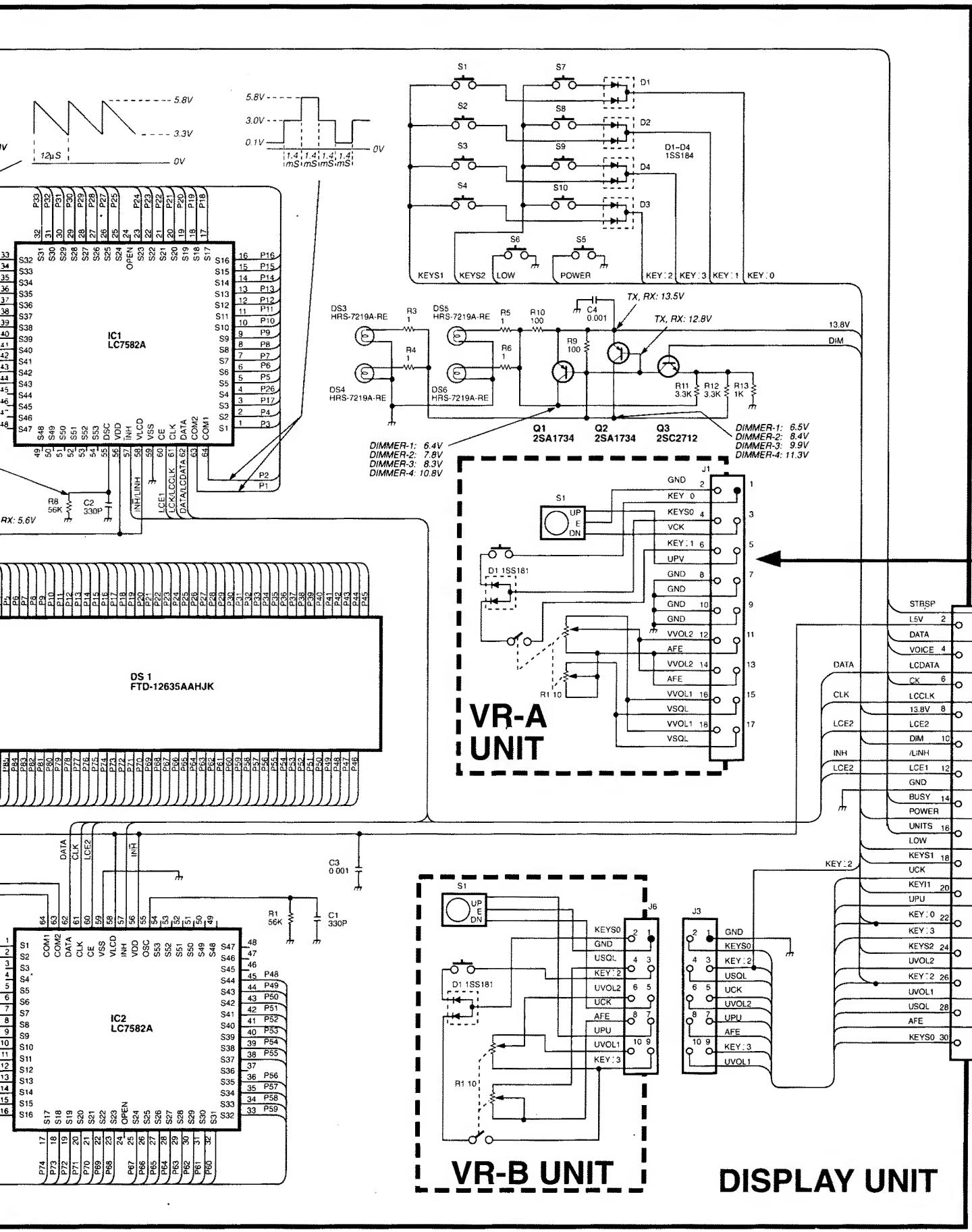
SEA

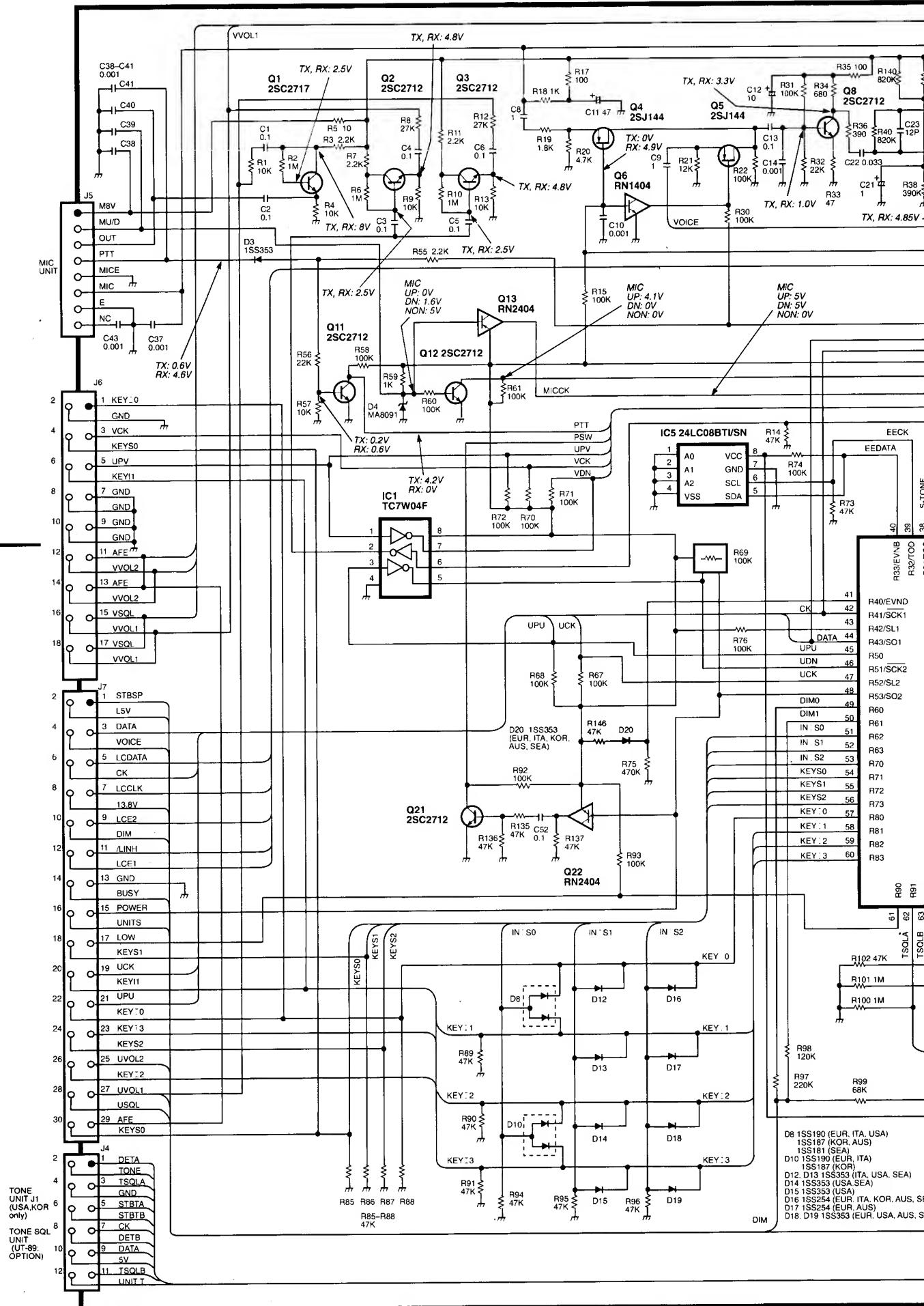


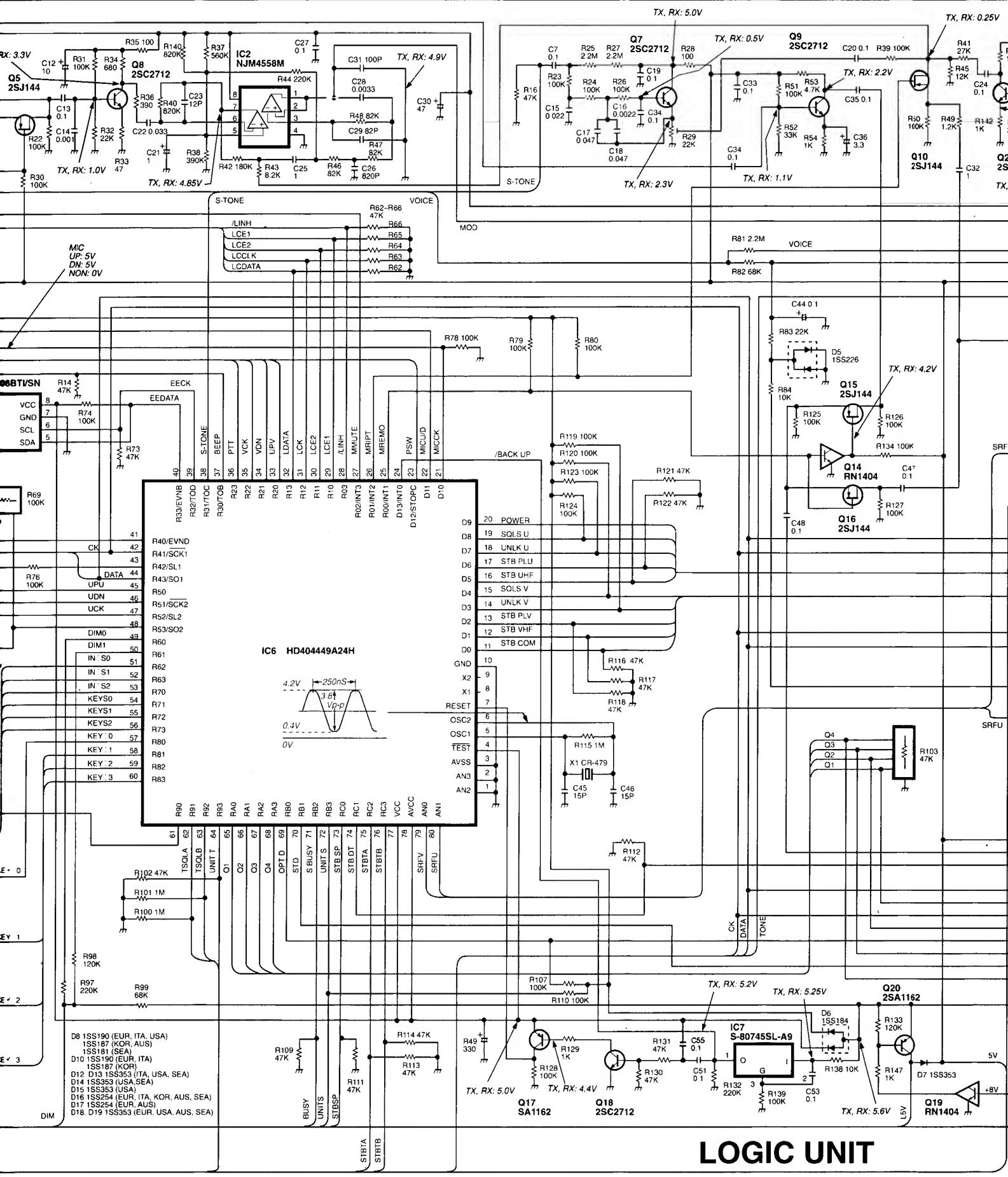
AGREE W/TONE : 0V
DISAGREE W/TONE : 4.5 V



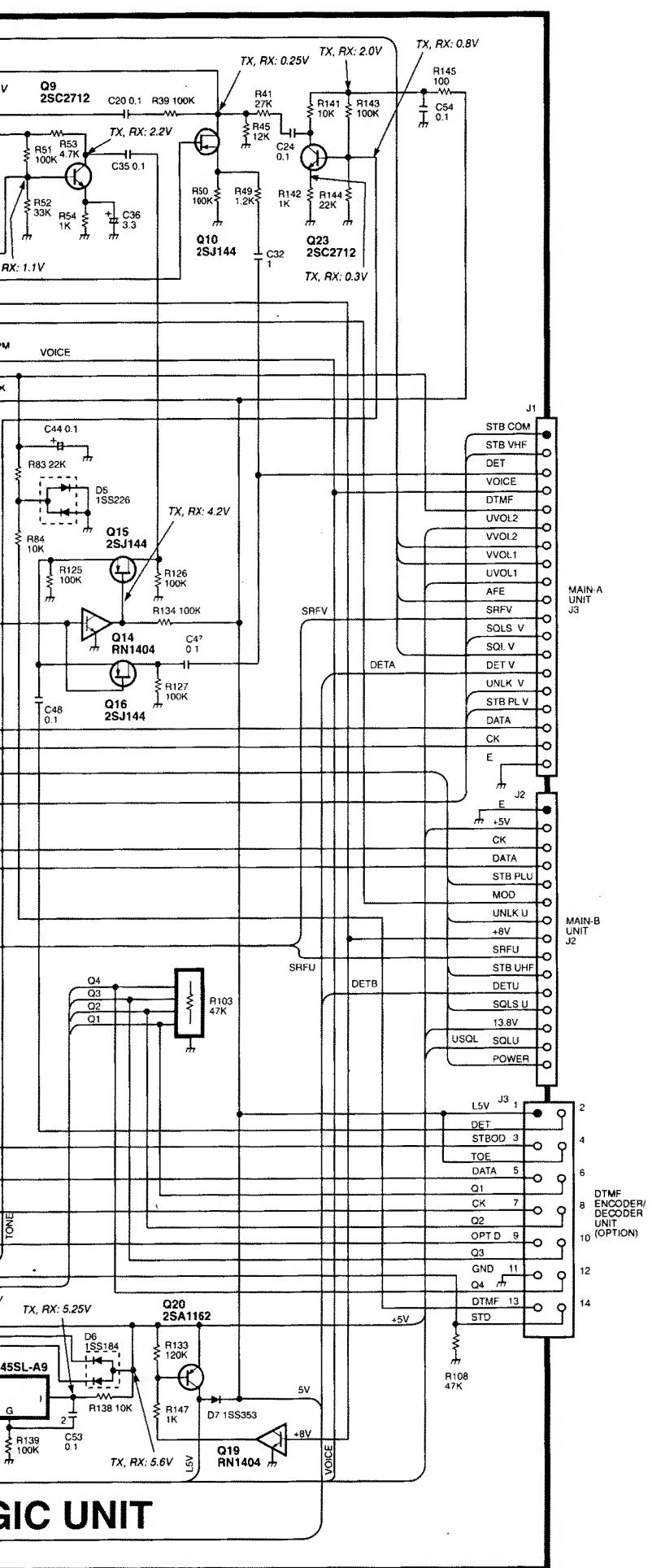
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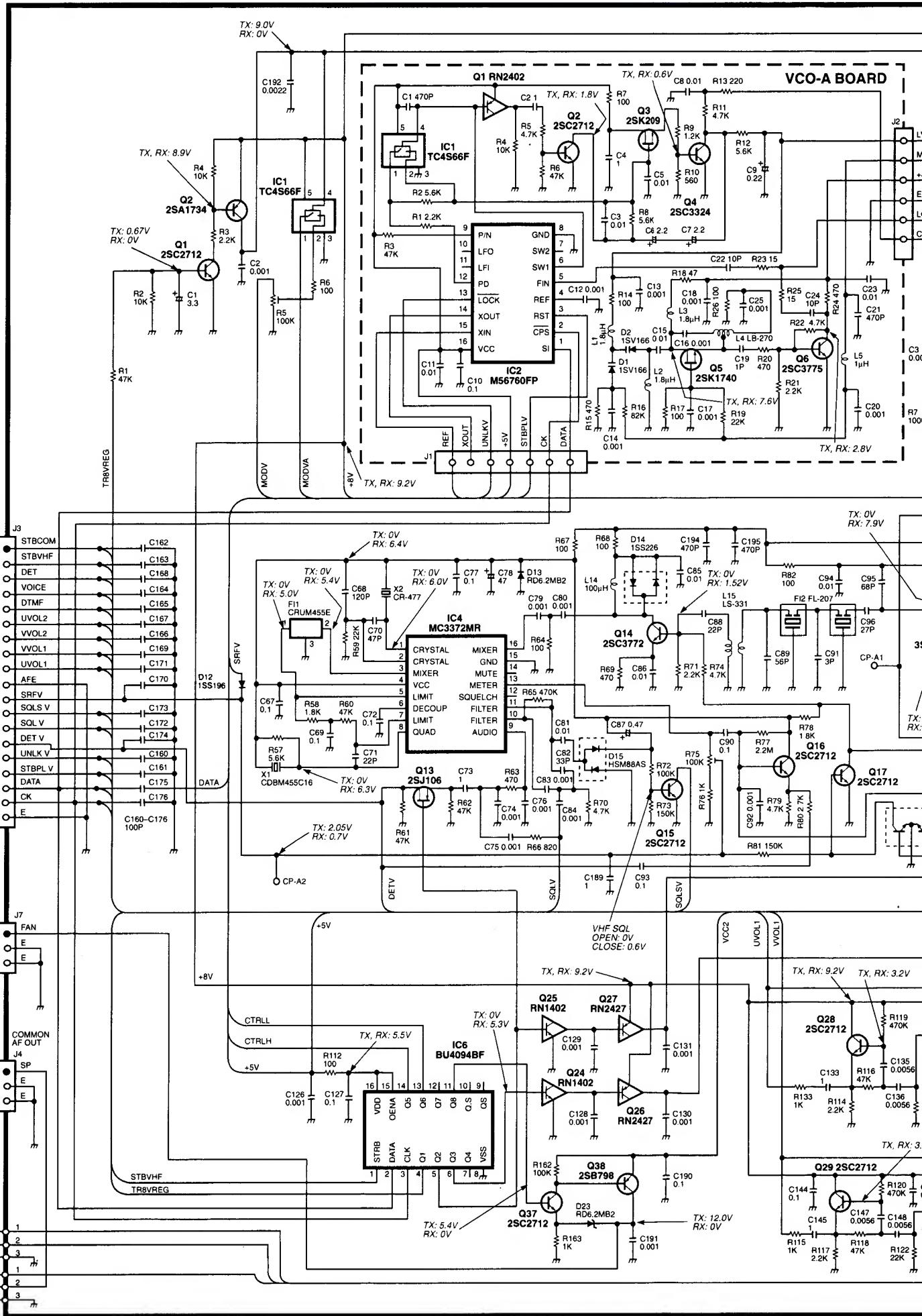


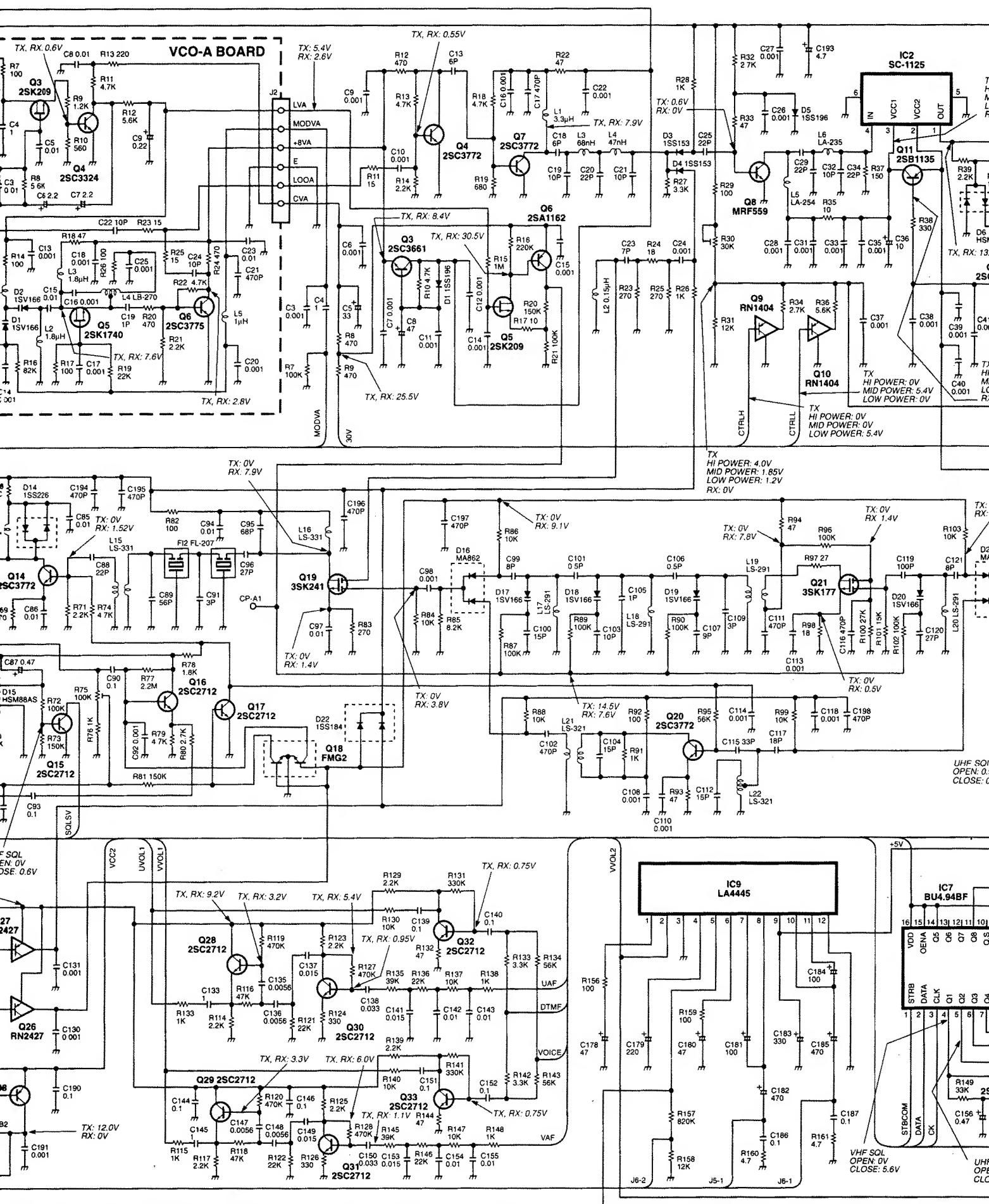


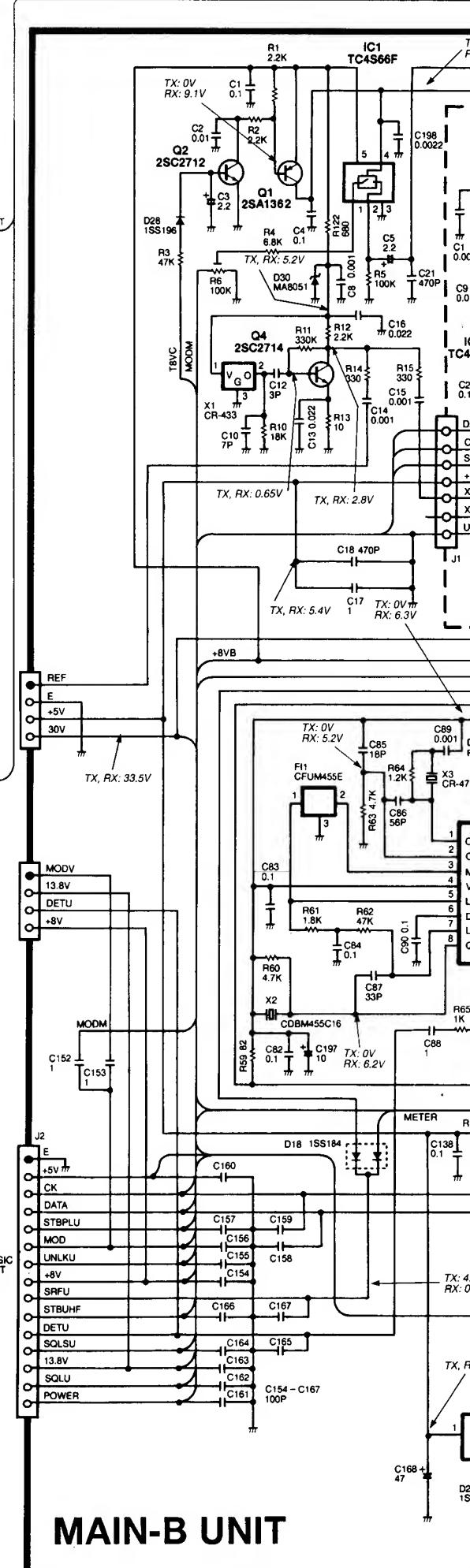
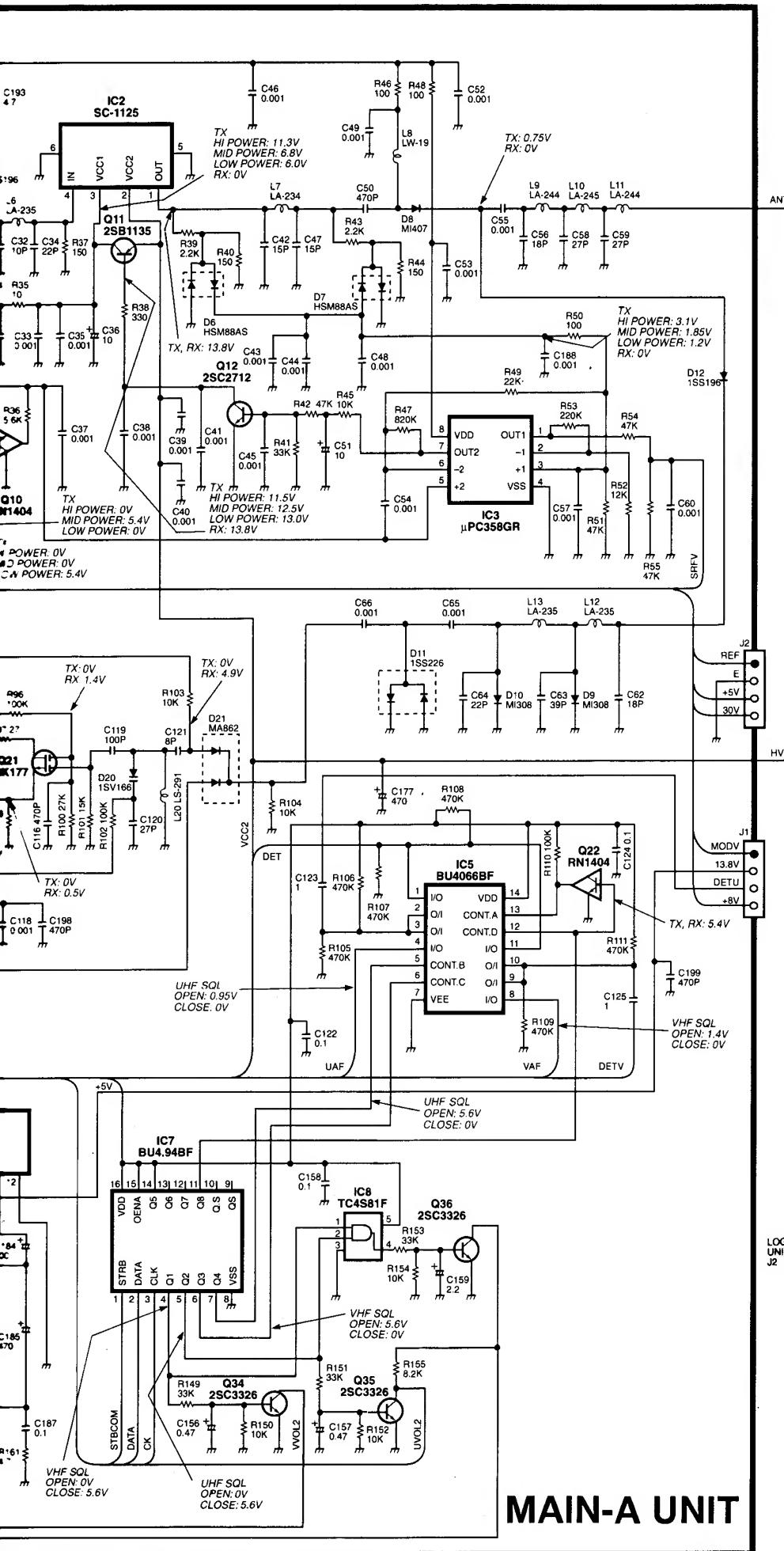


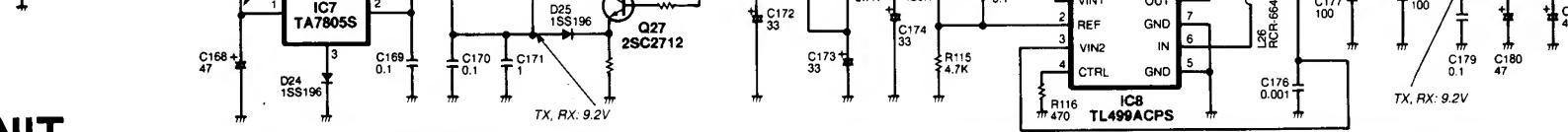
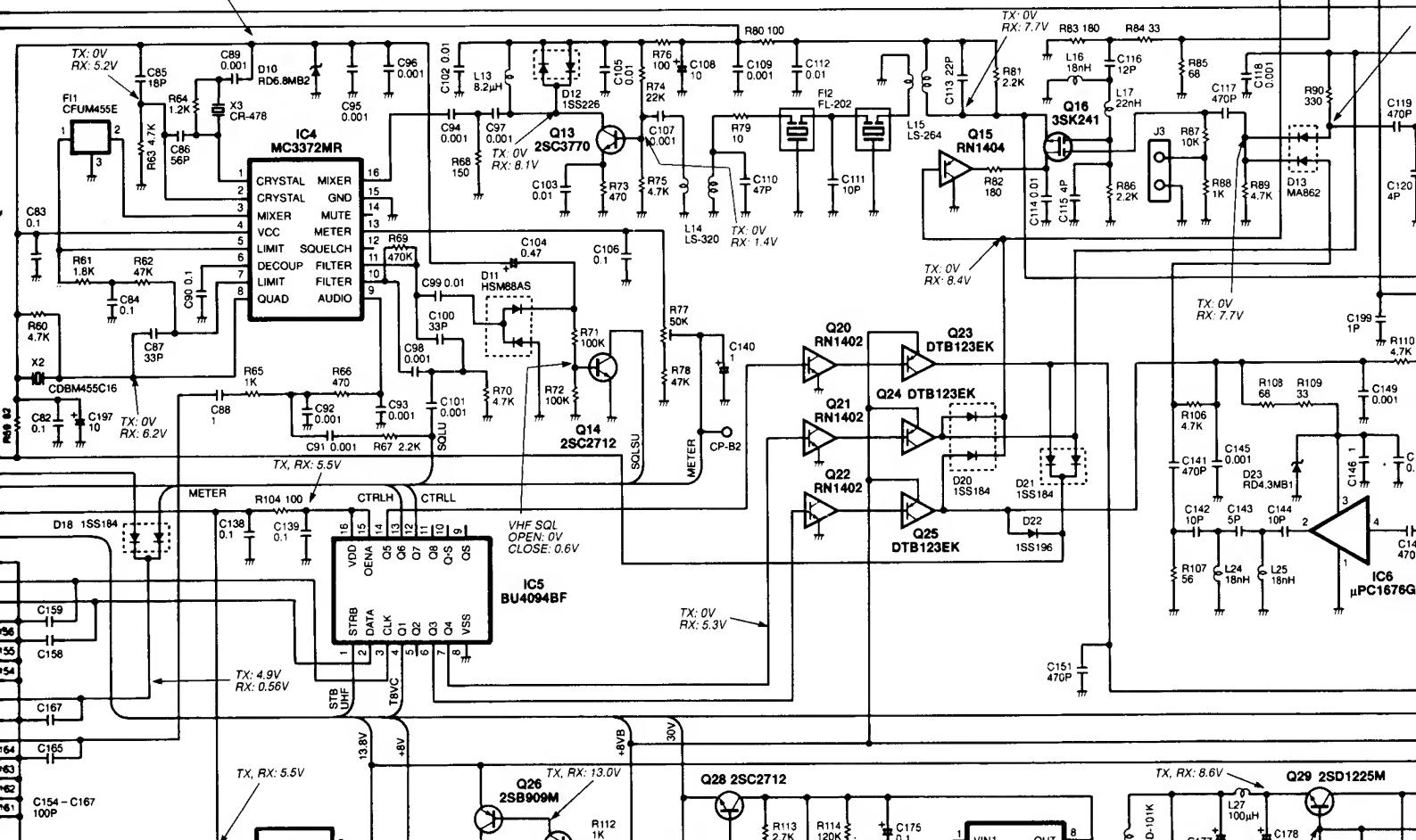
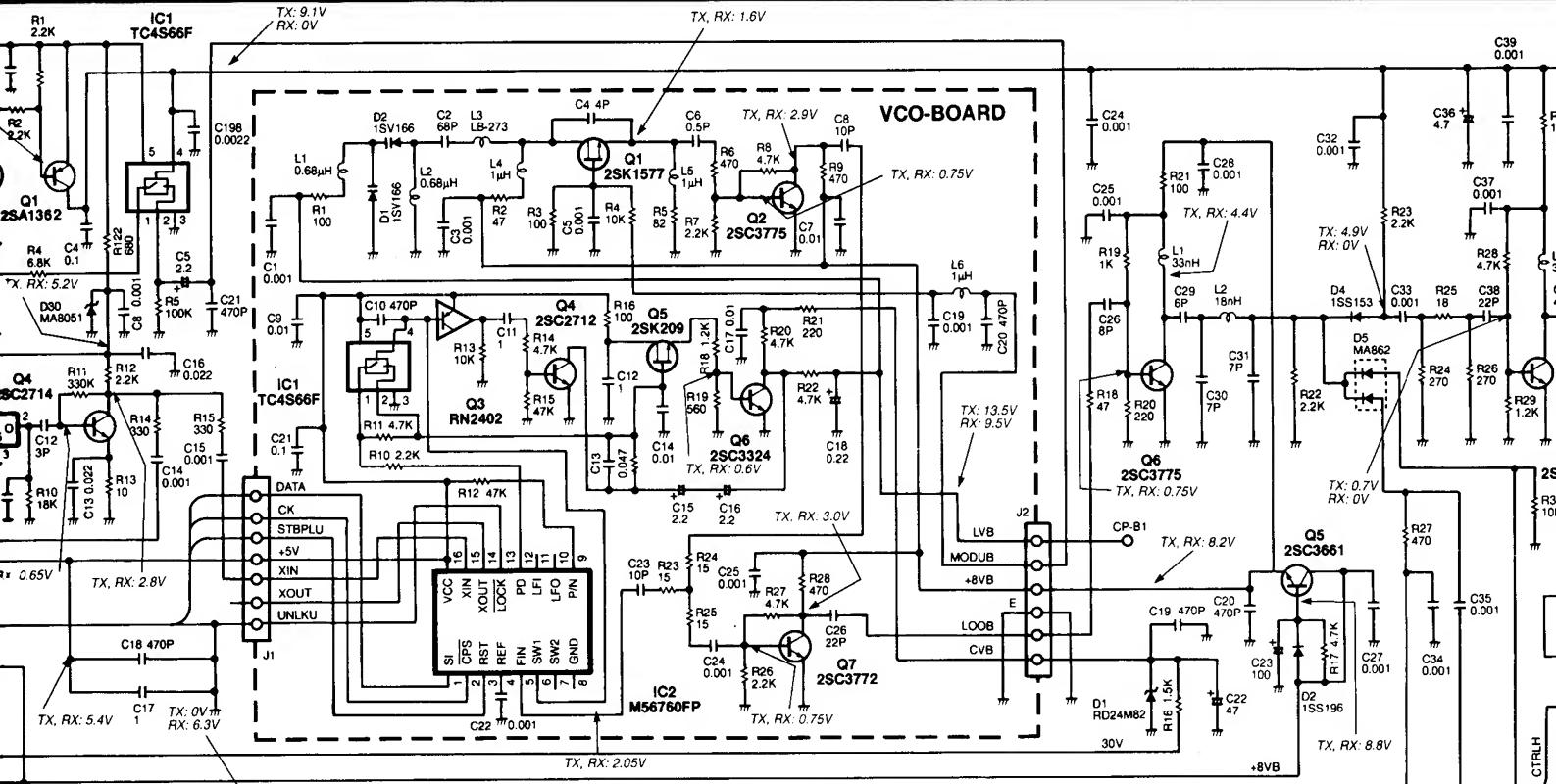
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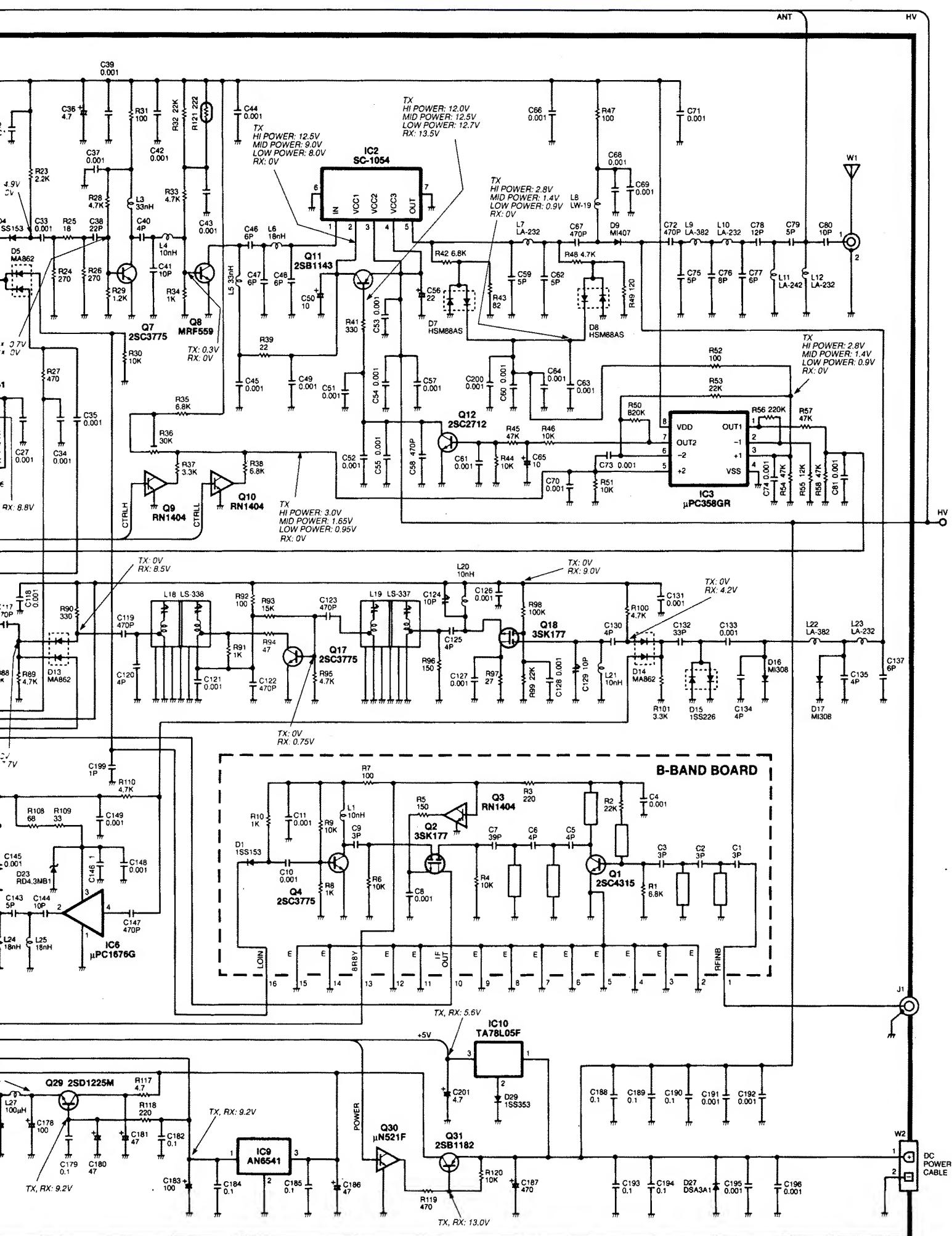












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